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Minimum
Maximum
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Maximum Match 100%
Listing first 45 summaries
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N Geneseq 19Jun03:*

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2: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1981.DAT:*

3: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1982.DAT:*

4: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1983.DAT:*

5: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1983.DAT:*

6: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1985.DAT:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARII

8	7	0	5	4	ω	2	_	Result
23	23	23	23	23	23	23	23	Score
100.0	100.0	100.0	100.0	100.0	100.0	0.001	100.0	Query Match
1713	1669	1593	1584	23	23	23	23	Query Match Length DB
20	25	20	24	21	21	21	20	
AAX37259	ABZ22816	AAZ11236	ABL40753	AAZ33293	AAA75063	AAA75049	AAX35646	ID
Human heparanase e	Human heparanase e	Human pre-prohepar	Chicken signal pep	Human heparanase P	PCR primer Hpu-335	PCR primer HPU335	PCR primer used to	Description

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45	44	43	42	41	40	39	38	37	36	υ 5	34	33	32	<u>1</u> 2	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9
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2747	2747	1731	588			577	577	577	577	577	577	367	343	160271	160271	160271	160271	160271	160271	160271	160271		N)		4	3726	1899	1899	1724	1723	1722	1721	1721	1721	1721	1721
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AAS64928	AAS64307	AAH13668	AAH08812	ABS12053	ABS37665	AAI43938	AAI18816	AAK38044	AAK12323	ABA30999	ABA63814	ABN15848	AAC17423	AAF85116	AAH23764	AAH40997	AAS06667	AAS04864	AAS04858	AAF85756	AAF85750	ABQ88126	AAQ84613	AAF93984	AAA75080	AAX86671	AAA75053	AAX35650	AAH20940	AAX37260	AAF93788	AAA91112	AAZ33290	AAZ39195	AAA75051	AAX35648
DNA encoding novel	DNA encoding novel	Human cDNA sequenc	Human cDNA clone (Human genome-deriv	Human liver single		Probe #8749 for ge		Human brain expres	Probe #9465 for ge	Human foetal liver	Human ORFX polynuc	Human secreted pro	Nucleotide sequenc	Human chromosome 1	160kb fragment of	Human chromosome 1	Human chromosome 1	Human chromosome 1	Human chromosome 1	. Bipolar affective	Human osteoblast d	ч	Primer specific fo	otide seque	encoding a	encoding a	cDNA encoding a hu	н	No:	Human cDNA encodin		Human heparanase n			cDNA encoding a hu

ALIGNMENTS

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RESULT 1
  Heparanase; hp; modulator; heparin-binding growth factor; cellular response; cytokine; cell interaction; plasma lipoprotein; cellular susceptibility; infection; disintegration; neurodegenerative plaque; wound healing; angiogenesis; restenosis; athersclerosis; inflammation; neurodegenerative disease; neutralise; plasma heparin; micrometastasis; autoimmune lesion; renal failure;
                                     02-JUL-1998;
02-SEP-1997;
                                                                          31-AUG-1998;
                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                09-JUL-1999 (first entry)
                                                                                                                                                                                                                                                                                                                          AAX35646;
                                                                                                                                                                                                                                                                                                                                                 AAX35646 standard; DNA; 23 BP.
(FRIE/) FRIEDMAN M M.
(HADA-) HADASIT MEDICAL RES SERVICES & DEV.
                                                                                                 11-MAR-1999.
                                                                                                                        WO9911798-A1
                                                                                                                                                                         g
                                                                                                                                                                                                                                                                        PCR primer used to amplify human hp3.cDNA.
                                                                                                                                                                       primer;
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                                   98US-0109386.
97US-0922170.
                                                                          98WO-US17954.
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PRACE CONTRACTOR OF THE PRACE 
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AAA75049
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                growth factors and cytokines, cell interaction with plasma lipoproteins, cellular susceptibility to viral, protozoal and bacterial infections or disintegration of neurodegenerative plaques. Heparanase may be useful for conditions such as wound healing, angiogenesis, restenosis, athersclerosis, inflammation, neurodegenerative diseases, and viral infections. Mammalian heparanase can be used to neutralize plasma heparin, and anti-heparanase antibodies may be applied for immunodetection and diagnosis of micrometastases, and uncommune lesions, and renal failure in biopsy specimens, plasma samples, and body fluids. PCR primers AAX35646-47 were used to amplify hp3 cDNA, in the course of the invention.
New polynucleotides encoding useful in wound healing and i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; heparanase; gene therapy; tumour; inflammation; autoimmunity; heparin-binding growth factor; cytokine; neurodegenerative plaque; wound healing; infection; burn; angiogenesis; restenosis; atherosclerosis; inflammation; neurodegenerative disease; Gerstmann-Straussler Syndrome; Creutzfeldt-Jakob disease; PCR primer
                                                                                        WPI; 2000-579289/54
                                                                                                                                         Pecker I,
                                                                                                                                                                                               (INSI-) INSIGHT STRATEGY & MARKETING LTD.
(HADA-) HADASIT MEDICAL RES SERVICES & DEV.
(FRIE/) FRIEDMAN M M.
                                                                                                                                                                                                                                                                                                            01-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                14-FEB-2000; 2000WO-US03542
                                                                                                                                                                                                                                                                                                                                                                                                                         08-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200052178-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCR primer HPU335
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA75049 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (INSI-) INSIGHT STRATEGY & MARKETING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
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23; Conserv
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                                                                                                                                      Vlodavsky
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
llarity 100.0%;
Conservative 0
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                                                                                                                                            Feinstein
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Pred. No. 0.19;
polypeptide having heparanase activity gene therapy, particularly in treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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The present PCR primer was used to amplify a human cDNA sequence, CC which encoded a protein with heparanase catalytic activity. The CC heparanase (hpa) polymucleotide is useful in gene therapy, particularly CC in treating tumour, inflammation or autoimmunity. Particularly, the CC polymucleotide is useful in modulating the bioavailability of polymucleotide is useful in modulating the bioavailability of the parin-binding growth factors, cellular responses to heparin-binding CC growth factors (e.g. bFGF) and cytokines (e.g. interleukin (IL)-8), CC cell interaction with plasma lipoproteins, cellular susceptibility to CC cell interaction with plasma lipoproteins, cellular susceptibility to CC disintegration of neurodegenerative plaques. The polymucleotide is CC also useful in wound healing (e.g. thermal, chemical or radiation burns), and in the treatment of angiogenesis, restenosis, atherosclerosis, inflammation, neurodegenerative diseases (Gerstmann-Straussler Syndrome or Creutzfeldt-Jakob disease), and some viral, bacterial or protozoa
  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tumour, inflammation, autoimmunity, neurodegenerative
  23
  BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 44; 152pp;
  9
  Þ,
  6 C;
  4
  G.
4 T;
  0 other;
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Query Match
Best Local S
Matches 23
<u>,</u>
                                     23;
                                              Similarity
             TTCGATCCCAAGAAGGAATCAAC
TTCGATCCCAAGAAGGAATCAAC 23
                                   100.0%;
llarity 100.0%;
Conservative 0
                                     0,
                                             Score 23; DB 2
Pred. No. 0.19;
                                     Mismatches
                 23
                                                     21;
                                     <u>.</u>.
                                                      Length
                                    Indels
                                                        23
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                                     Gaps
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RESULT 3
AAA75063
                                                                                                Human; heparanase; gene therapy; tumour; inflammation; autoheparin-binding growth factor; cytokine; neurodegenerative wound healing; infection; burn; anglogenesis; restenosis;
Homo sapiens.
                                                atherosclerosis; inflammation; neurodegenerative disease; Gerstmann-Straussler Syndrome; Creutzfeldt-Jakob disease;
                                                                                                                                                                                                                                                                                                                                                               AAA75063
                                                                                                                                                                                                         PCR primer Hpu-335 used to amplify human cDNA encoding
                                                                                                                                                                                                                                                            15-JAN-2001
                                                                                                                                                                                                                                                                                                                                                             standard; DNA;
                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                               23
                                                                                                                                                                                                      heparanase.
                                                                                                                                                         autoimmunity;
                                             PCR primer;
                                                                                                                           plaque;
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88

WO200052178-A1

14-FEB-2000; 2000WO-US03542

01-MAR-1999; 99US-0258892

(INSI-) (HADA-) (FRIE/) INSIGHT STRATEGY & MARKETING HADASIT MEDICAL RES SERVICES FRIEDMAN M M. LTD. DEV.

Pecker I, Vlodavsky H Feinstein

2000-579289/54

New polynucleotides encoding a polypeptide having heparanase activity useful in wound healing and in gene therapy, particularly in treating tumour, inflammation, autoimmunity, neurodegenerative diseases

Disclosure; Page 45; 152pp; English

The present PCR primer was used to amplify a human cDNA sequence which encoded a protein with heparanase catalytic activity. The

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Matches
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        heparanase (hpa) polynucleotide is useful in gene therapy, particularly in treating tumour, inflammation or autoimmunity. Particularly, the polynucleotide is useful in modulating the bioavailability of heparin-binding growth factors, cellular responses to heparin-binding growth factors (e.g. bFGF) and cytokines (e.g. interleukin (IL)-8), cell interaction with plasma lipoproteins, cellular susceptibility to certain viral and some bacterial and protozoa infections, or disintegration of neurodegenerative plaques. The polynucleotide is also useful in wound healing (e.g. thermal, chemical or radiation burns), and in the treatment of angiogenesis, restenosis, atherosclerosis, inflammation, neurodegenerative diseases (Gerstmann-Straussler Syndrome
The present invention describes heparanase-specific molecular probes, useful for methods of detecting heparanase in situ. The probes and anti-heparanase antibodies are used to detect or quantify the expression of heparanase, for diagnosis and monitoring of diseases (especially metastasis), for treatment of heparanase-associated diseases (e.g. tumours, (adeno)carcinoma, squamous cell carcinoma, teratocarcinoma, mesothelioma, melanoma, lymphoma or leukemia, a solid cancer (or its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         metastasis; adenocarcinoma; squamous cell carcinoma; teratocarcinoma; mesothelioma; melanoma; lymphoma; leukemia; cancer; sepsis; diabetes;
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                                                                                                                                                                                              2000-052944/04
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          metastases) derived from liver, prostate, cervix, colon, skin, intestine, stomach,
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                      The invention relates to an isolated avian and reptile nucleic acid, encoding a polypeptide with heparanase catalytic activity. The signal peptide of the nucleic acid can be used to express membrane-associated
                                                                                                                                                                                    Nucleic acid encoding avian and reptile heparanase polypeptide i useful to treat various heparin-related disorders and the signal peptide is useful in production of membrane-targeted or secreted recombinant recombination.
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                                                                                                                    Page
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Matches 23
                     This sequence encodes the human pre-proheparanase of the invention. This sequence was isolated from human platelets. The heparanase can be used for identifying agents which alter heparanase activity. The heparanase can be used for wound healing or for blocking angiogenesis or inflammation. It can be used for treating e.g. psoriasis, diabetic retinopathy or solid tumours, or for the degradation of heparin and the neutralisation of heparin's anticoagulant properties during surgery.
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                                                                                                                                                                                                                                                                                                                           New isolated platelet heparanase products for, e.g. wound healing
                                                                                                                                                                                                                                                                   Claim 2; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-540598/45.
P-PSDB; AAY34173.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; pre-proheparanase; platelet; wound healing; angiogenesis blocker; inflammation; psoriasis; diabetic retinopathy; solid tumour; arthritis; heparin degradation; anticoagulant neutralisation; asthma; CNS disease; inflammatory disease; vascular restenosis; atherosclerosis; diagnosis; tumour growth; fibroproliferative disorder; neurodegenerative disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fairbanks MB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-SEP-1999.
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   Inhibitors of heparanase activity can be used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (PHAA ) PHARMACIA & UPJOHN CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAR-1998;
24-FEB-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-NOV-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gb
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                                                                                                                                                                                                                                                                   7; 57pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Heinrikson RL,
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98US-0075706.
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/*tag= a
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                                                                                                                                                                                                                                                                   English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pre-proheparanase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mildner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                           polypeptides, used to develop and blocking angiogenesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              426 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 24; Length 1584;
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   treatment
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                 complementary to a sequence of ribonucleic acid encoding a heparanase. The oligonucleotide hybridises with the ribonucleic acid under conditions of high stringency and has a sequence comprising 10-40 bp. The internucleoside linkages of the oligonucleotide comprise at least one phosphorothioate linkage. Hybridisation of the oligonucleotide to the ribonucleic acid inhibits expression of the heparanase, where inhibition of heparanase means at least a 50% reduction in the quality of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            atherosclerosis, tumour growth and progression, fibroproliferative disorders, and central nervous system (CNS) and neurodegenerative diseases. The products can also be used for detection and diagnosis. The purified heparanase, both recombinantly produced human heparanase and heparanase isolated from human platelet activity, allows for the convenient selection of compounds having anti-heparanase activity, i.e. inhibitors of heparanase activity by measuring inhibition of heparanase activity. Inhibition of heparanase activity can be measured by blocking heparanase-mediated release of radioactive fragments from in vivo radiolabelled (HSPG)/heparin.
                                                                                                                                                                                                                                            New oligonucleotide having a sequence complementary to a sequence ribonucleic acid encoding a heparanase, useful for preparing a composition for treating tumor -
                                                                                                                                                                                                          Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; heparanase; phosphorothioate; antisense oligonucleotide; cytostatic; gene therapy; tumour; enzyme; gene; ss.
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                                                                                                                                                                 The present invention describes an oligonucleotide having a sequence
                                                                                                                                                                                                                                                                                                                                  P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUL-2001; 2001US-0899440.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUL-2002; 2002WO-US20636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-JAN-2003.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1593 BP; 426 A; 370 C; 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           arthritis, asthma, and other inflammatory diseases, vascular restenosis,
                                                                                                                                                                                                                                                                                                                                     2003-201558/19.
DB; ABP56822.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            271
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                                                                                                                                                                                                                                                                                                                                                                                                                                            VIND
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                                                                                                                                                                                                          Fig 3; 48pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                          COLUMBIA NEW YORK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'product= "heparanase"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          encoding
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Pred. No.
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The invention relates to nucleic acid sequences that encode heparanase enzymes having endoglucuronidase activity. Recombinant heparanases are capable of removing the HS side chain from heparan sulfate proteoglycan (HSPG). Sulfated oligosaccharides, sulphonates or HSPG can be used to inhibit heparanase, this is useful for treatment of a physiological or medical condition associated with elevated heparanase activity, such as metastasis, angiogenesis, wound healing, angioplasty-induced restenosis, arteriosclerosis, atherosclerosis and inflammation. The human, murine and rat heparanases can be used to enhance wound healing, especially associated with tissue development and repair. The conditions mentioned above can be diagnosed using specific antibodies, and also using primers and probes specific for the heparanase polynucleotides. Other uses of the heparanases include sequencing sulfated molecules such as HSPG. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    heparanase in a cell; (2) a composition comprising the above oligonuclectide in an amount effective to inhibit, the expression of heparanase in the cell and a carrier; and (3) a method of treating a tumour in a subject comprises administering to the subject an amount of the above oligonucleotide effective to inhibit expression of a heparanase in the subject. Heparanase antisense oligonucleotides have cytostatic activity, can be used in gene therapy, and can be used for preparing a composition for treating tumours. The present sequence encodes human heparanase, which is given in the exemplification of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      arteriosclerosis; atherosclerosis; inflammation; tissue development; human; HSPG; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Heparanase; endoglucuronidase; heparan sulfate proteoglycan; enzyme; metastasis; angiogenesis; wound healing; angioplasty-induced restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human heparanase enzyme encoding
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                                                                                                                                                                                                                                                                       Claim 3; Page 69-73; 112pp; English.
                                                                                                                                                                                                                                                                                                          Polynucleotides encoding mammalian endoglucuronidases, especially heparanases, useful to promote wound healing
                                                                                                                                                                                                                                                                                                                                                                         P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                             Freeman
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28-OCT-1997;
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97AU-0000062.
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Pred. No. 0.32;
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RESULT 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                      The specification describes a polypeptide having heparanase (hpa) activity. The recombinant protein is used as a modulator of heparin-binding growth factors, cellular responses to heparin-binding growth factors and cytokines, cell interaction with plasma lipoproteins, cellular susceptibility to viral, protozoal and bacterial infections or disintegration of neurodegenerative plaques. Heparanase may be useful for conditions such as wound healing, angiogenesis, resteenosis, athersclerosis, inflammation, neurodegenerative diseases, and viral infections. Mammalian heparanase can be used to neutralize plasma becomes and spatial for the protocol of the protocol of the policy of the protocol of the pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       present sequence represents a DNA encoding human heparanase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cellular response; cytokine; cell interaction; plas cellular susceptibility; infection; disintegration;
Sequence 1721 BP; 451 A; 413
                                                                                                                                                      infections. Mammalian heparanase can be used to neutralize plasma heparin, and anti-heparanase antibodies may be applied for immunodetection and diagnosis of micrometastases, autoimmune lesions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human polynucleotide useful for treating angiogenesis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P-PSDB; AAY02345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-302255/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Feinstein E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9911798-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neurodegenerative plaque; wound healing; angiogenesis; restenosis; athersclerosis; inflammation; neurodegenerative disease; neutralis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Heparanase; hpa; modulator; heparin-binding growth factor; cellular response; cytokine; cell interaction; plasma lipo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA encoding a human heparanase protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAX35648 standard; cDNA; 1721 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 restenosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (FRIE/)
                                                                             renal failure in biopsy specimens, plasma samples, present sequence encodes human heparanase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  355 Tregareccaagaaggaarcaac 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 heparin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HADASIT MEDICAL RES SERVICES INSIGHT STRATEGY & MARKETING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FRIEDMAN M M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCGATCCCAAGAAGGAATCAAC 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1713 BP; 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; 63pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pecker I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0109386.
97US-0922170.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US17954.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             micrometastasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 23; DB 2
100.0%; Pred. No. 0.32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; 404 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Vlodavsky I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
C; 410 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              406
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ETD.
    447 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  443 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1713;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                         and
                                                                                                                     body fluids.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
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Query Match

100.0%;

Score 23;

DB 20;

Length 1721;

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RESULT 10
AAA75051
ID AAA75
XX AAA75
XX
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Matches
                                             The present sequence encodes a human protein with heparanase catalytic activity. The heparanase (hpa) polynucleotide is useful in gene therapy, particularly in treating tumour, inflammation or autoimmunity. Particularly, the polynucleotide is useful in modulating the bioavailability of heparin-binding growth factors, cellular responses to heparin-binding growth factors (e.g. bfg) and cytokines (e.g. interleukin (II)-8), cell interaction with plasma lipoproteins, cellular susceptibility to certain viral and some bacterial and protozoa infections, or disintegration of neurodegenerative plaques. The polynucleotide is also useful in wound healing (e.g. thermal, chemical or radiation burns), and in the treatment of angiogenesis, restenosis, atherosclerosis, inflammation, neurodegenerative diseases (Gerstmann-Strausseler Syndrome or Creutzfeldt-Jakob disease), and some viral,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (INSI-)
(HADA-)
(FRIE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New polynucleotides encoding a polypeptide having heparanase activity, useful in wound healing and in gene therapy, particularly in treating tumour, inflammation, autoimmunity, neurodegenerative diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; heparanase; gene therapy; tumour; inflammation; autoimmunity; heparin-binding growth factor; cytokine; neurodegenerative plaque; wound healing; infection; burn; angiogenesis; restenosis; atherosclerosis; inflammation; neurodegenerative disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 9; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gerstmann-Straussler Syndrome; Creutzfeldt-Jakob disease; ds.
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                        baçterial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pecker I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-FEB-2000; 2000WO-US03542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200052178-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA75051
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INSIGHT STRATEGY & MARKETING LTD. HADASIT MEDICAL RES SERVICES & DEV. FRIEDMAN M M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB08849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vlodavsky I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; 152pp; English
                              protozoa infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product= "heparanase"
698..724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers 63..1693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "these nucleotides are likely to be involved in forming stem and loop structures"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Feinstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
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Best Local :
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                  The present invention describes genetically modified cells (A) containing a polynucleotide (I) that encodes a polypeptide with heparanase activity, and express recombinant heparanase (II). Heparanase cleaves heparan sulphate (HS) at specific intrachain sites, resulting in release of heparin-binding growth factors, enzymes and proteins that are sequestered by HS in basement membranes, extracellular matrix or cell surfaces. It may also be implicated in tumour angiogenesis and metastases. (II) is potentially useful in wound healing and for treating angiogenesis, restenosis, atherosclerosis, inflammation, neurodegeneration, viral infection and cystic fibrosis. It can also be used to neutralise heparin (an alternative to protamine) and to screen for specific inhibitors (potentially useful for treating cancer and metastases). Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; heparanase; hpa; genetic modification; expression; anticancer; angiogenesis; anti-angiogenic; antiproliferative; antiviral; antitumour anti-atherosclerotic; anti-inflammatory; antineurodegeneration; heparan sulphate; heparin-binding growth factor; tumour angiogenesis; metastasis; wound healing; restenosis; atherosclerosis; inflammation; neurodegeneration, viral infection; cystic fibrosis; cancer; diagnosis; micrometastasis; autoimmune lesion; kidney failure; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ben-Artzi H,
Shlomi Y;
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                                                                                                                                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                 specific inhibitors,
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02-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                               Page 106-107; 118pp;
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99US-0260038.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product= "heparanase"
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  used
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Pred. No.
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     immunodetection
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     diagnosis of
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                                                                                                                                             The present invention describes heparanase-specific molecular probes, useful for methods of detecting heparanase in situ. The probes and anti-heparanase antibodies are used to detect or quantify the expression of heparanase, for diagnosis and monitoring of diseases (especially metastasis), for treatment of heparanase-associated diseases (e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antidiabetic; immunomodulatory; anti-inflammatory; nephrotropic; metastasis; adenocarcinoma; squamous cell carcinoma; teratocarcinoma; mesothelioma; melanoma; lymphoma; leukemia; cancer; sepsis; diabetes; inflammation; haemorrhagic nephritis; nephrotic syndrome; autoimmune disease; anticancer; kidney disease; ds.
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tumours, (adeno)carcinoma, squamous cell carcinoma, teratocarcinoma, mesothelioma, melanoma, lymphoma or leukemia, a solid cancer (or its metastases) derived from liver, prostate, bladder, bread covary, cervix, colon, skin, intestine, stomach, uterus and pancreas, kidney disease, diabetes and inflammation, haemorrhagic nephritis, nephrotic syndrome, sepsis and inflammatory or autoimmune disease), for targeted
                                                                                                                                                                                                                                                                                                                                              Heparanase-specific molecular probes useful treatment, e.g. of tumors, and for targeted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-APR-1999;
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                                                                                                                                                                                                                                                                                                  Example; Page 82-84; 90pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pecker
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vlodavsky I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                for diagnosis and drug delivery -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence encodes human hepara exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     drug delivery (e.g. of anticancer agents) and as research reagents.
                                                                                                                      This sequence represents a human heparanase coding sequence clone, isolated from an EST clone. The invention relates to heparanase DNA and protein sequences. The heparanase DNA and protein sequences are useful in wound healing, angiogenesis, restenosis, atherosclerosis, inflammation, pulmonary diseases, neurodegenerative diseases (such as Scrape, Alzheimer's diseases, and Creutzfeldt-Jakob diseases) or viral infections. The heparanase coding sequence is particularly useful in confections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA91112 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  atherosclerosis; inflammation; pulmonary disease; Alzheimer's disease; neurodegenerative disease; Creutzfeldt-Jakob disease; viral infection; gene therapy; mouse; expressed sequence tag; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Heparanase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human heparanase, coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-APR-2001
                                                                                 Sequence 1721 BP; 451 A; 413 C; 410 G;
                                                                                                                                                                                                                                Example 1; Page 67; 67pp;
                                                                                                                                                                                                                                                                    protocols for angiogenesis,
                                                                                                                                                                                                                                                                       New polynucleotides and polypeptides that are distantly homologous heparanase, useful in wound healing, as well as in gene therapy protocols for angiogenesis, restenosis, atherosclerosis, or
                                                                                                                                                                                                                                                                                                                                WPI; 2001-137930/14
                                                                                                                                                                                                                                                                                                                                                        Pecker I, Michal I,
                                                                                                                                                                                                                                                                                                                                                                                                               25-JUN-1999;
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                                                                                                                                                                                                                                                                                                                                                                                    (INSI-) INSIGHT STRATEGY & MARKETING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                therapy; mouse; expressed sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       372
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 TTCGATCCCAAGAAGGAATCAAC
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                             Conservative
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                                        100.0%;
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                                           Pred. No.
                                                        Score 23;
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                               Mismatches
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                                                                                                                                     CC AAB8317 - AAF9295 and AAF62232 - AAF62235 which are used to isolate the CC cDNA sequences of the invention. The invention also includes methods for the production of antibodies directed against the proteins, and cDNA sequences, which can be used in vaccines. The polynucleotide sequences can be used in gene therapy. The polynucleotide sequences and the groteins they encode may be used in the prevention, treatment and cC diagnosis of diseases associated with inappropriate secretory convetein/membrane protein expression. The nucleic acids and complementary sequences may also be used as DNA probes in diagnostic assays convetein/membrane chain reactions (PCR)) to detect and quantitate the presence of similar nucleic acid sequences in samples. They may also be used to study the expression and function of secretory proteins/membrane cc used to study the expression and function of secretory proteins/membrane cc polypeptides and their role in metabolism. The polypeptides may be used converted to down regulate expression and antiponists against them and in assays to converte to down regulate expression and activity. The antibodies and antagonists may also be used as diagnostic agents for detecting the presence of the cc polypeptides in samples (e.g. by enzyme linked immunosorbant assay converted as disposite of diseases which may be treated include rheumatoid arthritis and diabetes.
                                                                    Matches
                                                                                                    Query Match
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11-JAN-2000;
02-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nucleic acids encoding secretory proteins/membrane proteins, useful gene therapy or as candidate target molecules in drug development -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; secretory protein; membrane protein; vaccine; gene therapy; rheumatoid arthritis; diabetes; ss.
                                                                                                                                     Sequence 1722 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This invention relates to nucleic acid sequences AAF93744 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID 89; 609pp + CD ROM; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ota T,
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                                                                                    Local
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373 TTCGATCCCAAGAAGGAATCAAC 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               encode human secretory
                                                                    23;
                                 1 TTCGATCCCAAGAAGGAATCAAC 23
                                                                                    Similarity
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                                                                    Conservative
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2000JP-0183766
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                                                                                                                                     449 A; 414 C; 412 G; 447 T; 0 other;
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                                                                                                                                                      The invention relates to nucleic acid sequences that encode heparanase enzymes having endoglucuronidase activity. Recombinant heparanases are capable of removing the HS side chain from heparan sulfate proteoglycan (HSPG). Sulfated oligosaccharides, sulphonates or HSPG can be used to inhibit heparanase, this is useful for treatment of a physiological or medical condition associated with elevated heparanase activity, such as metastasis, angiogenesis, wound healing, angioplasty-induced restenosis, arteriosclerosis, atherosclerosis and inflammation. The human, murine and rat heparanases can be used to enhance wound healing, especially associated with tissue development and repair. The conditions mentioned above can be diagnosed using specific antibodies, and also using primers and probes specific for the heparanase polynucleotides. Other uses of the heparanases include sequencing sulfated molecules such as HSPG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Heparanase; endoglucuronidase; heparan sulfate proteoglycan; enzyme; metastasis; angiogenesis; wound healing; angioplasty-induced resteno arteriosclerosis; atherosclerosis; inflammation; tissue development;
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                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                     Claim 11; Page 76-79; 112pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                  Polynucleotides encoding mammalian endoglucuronidases, especially heparanases, useful to promote wound healing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Freeman CG,
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28-OCT-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human; HSPG; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (AUSU ) UNIV
                                                                               Local
361
                                                              23;
                             1 TTCGATCCCAAGAAGGAATCAAC
                                                                               Similarity
TTCGATCCCAAGAAGGAATCAAC 383
                                                                                                                             1723 BP; 461 A; 407 C; 412 G; 443 T; 0 other;
                                                             100.0%; Score 23; DB 2 ilarity 100.0%; Pred. No. 0.32; Conservative 0; Mismatches
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97AU-0000062.
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Search completed: February 16, 2004, 09:18:13 Job time : 13.2849 secs

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Pred. No. is the number of results predicted by chance to have a

REFERENCE AUTHORS

TITLE JOURNAL

1 (bases 1 to 23)
Pecker, I., Vlodavsky, I. and Feinstein, E.
Polynucleotide encoding a polypeptide having heparanase activity
and expression of same in transduced cells
Patent: US 5968822-A 6 19-OCT-1999;

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

RESULT 1 AR080677 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM Result ი ö Score Sequence AR080677 Unknown AR080677.1 Unknown. AR080677 Unclassified. Query Match 100 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 95.7 1000. 100. 000 100 100. 100. 100. 100 100 100. 100. 81.7 000 σ 1899 3726 3726 3726 3726 3726 149188 248754 191721 Length from GI:10007407 558 1593 1593 1669 1669 1713 1810 patent ВB AR125604 AR194199 AR194190 AR221285 AR223204 AR2243204 AR2287435 AR287436 BD074427 BD123536 AX136167 BD123536 AX1075400 AR156692 AX034645 AX117544 AF144325 BD074431 AR080679 AR080680 AF152376 AR156691 AX034643 BD136761 AF084467 AR287439 BD074425 BD110974 AR210040 AR080677 AR125607 Ħ AR125603 S SUMMARIES ALIGNMENTS 23 bp 5968822. DNA linear BD074431 BD074431 AR235866 AX019348 BD131218 AX147946 AF165154 AF144325 BC051321 BD074427 BD074428 AR125604 AR194189 AR194190 AR221285 AR080679 AR080680 AR125603 AR210040 BD136761 AR080677 AR125607 AR287439 Description AC134101 AR287436 AR287435 AX034643 PAT Sequence Sequence Sequence Sequence Sequence Polynucle Polynucle Sequence Sequence Sequence Sequence Sequence Sequence Sequence Human pla Homo sapi Homo sapi Sequence Sequence Sequence Secretory 3 Mus muscu Homo sapi Homo sapi Homo sapi Polynucle Polynucle Sequence Sequence Sequence Homo sapi Sequence Sequence Sequence Homo sapi Sequence Sequence Sequence Sequence Sequence Polynucle EST and e Rattus no 31-AUG-2000

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Pecker, I., Vlodavsky, I., Friedman, Y. and Heparanase specific molecular probes and medical applications
Patent: US 6531129-A 6 11-MAR-2003;
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Pecker, I., Vlodavsky, I., Friedman, Y. and
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Patent: US 6177545-A 6 23-JAN-2001;
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Mammalia; Eutheria; Primates; Catarrhini; Homin
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Edwards; J.B.D.M., Jobert, S. and Giordano, J.E.
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Patent: JP 2002010789-A 3051 15-JAN-2002;
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Heinrikson,R.Leroy., Fairbanks,M.B. and Mildner,A.M.
Human platelet heparanase polypeptides, polymcleotid
that encode them, and methods for the identification
that alter heparanase activity
Patent: US 6387643-A 1 14-MAY-2002;
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BD136761.1 GI:23231706
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07-AUG-2000 JP 2000280989
05-AUG-1999 US 60/147499
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Dempsey,L.A., Plummer,T.B., Coombes,S.L. and Platt,J.L.
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/organism="Homo sapiens"
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180 Varick Street, New York, NY 10014, USA
Location/Qualifiers
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                                                        /translation="milrskpalppplmilligplgplspgalprpaqaqdvvdldff
TQEPLHLVSPSFLSVTIDANLATDPRFLILLGSPKLRTLARGLSPAYLRFGGTKTDFL
IFDPKKESTFEERSYMQSQVNQDICKYGSIPDVEEKLRLEMPYQEQLLLREHYQKKF
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/protein_id="AAD45669.1"
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/mol_type="mRNA"
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AR156691
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AR156691
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                                                                                                                                                                                                Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia: Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                     Sequence 12 from Patent AX034643
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Isolated nucleic acid molecule encoding and uses therefor Patent: US 6242238-A 12 05-JUN-2001;
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Freeman, C. Geoffrey., Hulett, M. Darren., Parish, C. Richard.
Hamdorf, B. James.
                                                                                                                                                     Isolated nucleic acid and uses therefor
                                                                                                                                          Patent: EP 1032656-A 12 06-SEP-2000;
                                                                                                                                                                                Hamdorf,B.J.,
                                                                                                                                                                                                                                                                         AX034643.1 GI:10303224
                                                                                                                                                                                                                                                                                                              AX034643
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                                                                                                                                                                                                                                               Homo sapiens (human)
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12 from patent US 63
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ÞÞLMEKÞLRÞGSSLGLÞAFSYSFFVIRNAKVAACI"
3 398 c 391 g 440 t
                                                        /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="unknown"
404 c 406 g
/protein_id="CAC10139.1"
/db_xref="GI:10303225"
                      /codon_start=
                                                                                                               ocation/Qualifiers
                                     note="unnamed protein product"
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translation="MLLRSKPALPPPLMLLLLGPLGPLSPGALPRPAQAQDVVDLDFF"

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AR080679
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Pecker, I., Vlodavsky, I. and Feinstein, E.
Polynucleotide encoding a polypeptide having heparanase activity
and expression of same in transduced cells
Patent: US 596882, Ali 19-OCT-1999;
                                                                                                                                                                                                        Sequence 11
AR080680
                                                                                                                                                                                                                                                                                                                                                               23;
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Pecker,I., Vlodavsky,I. and Feinstein,B.
Polynucleotide encoding a polypeptide having heparanase activity
and expression of same in transduced cells
Patent: US 5968822-A 9 19-OCT-1999;
Location/Qualifiers
                                                                                                                                      Unclassified.
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llarity 100.0%;
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TLYAINLHNVTKYLRLPYPFSNKQVDKYLLRPLGPHGLLSKSVQLNGLTLKMVDDQTL
PPLMEKPLRPGSSLGLPAFSYSFFVIRNAKVAACI"
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KNSTYSRSSYDVLYTFANCSGLDLIFGLALLRTADLQWNSSNAQLLLDYCSSKGYNI
SWELGNEPNSFLKKADIFINGSQLEBDFQLHKLLRKSTFKNAKLYGPDVGQPRRKTA
KMLKSFLKAGGEVIDSYTWHHYYLNGERTATREDFLNDDVLDIFISSVQKVFQVVESTR
PGKKVWLGETSSAYGGGAPLLSDTFAAGFMWLDKLGLSARMGIEVVMRQVFFGAGNYH
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413 c 410 g
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404 c 406 g
           /organism="unknown"
413 c 410 g
                                                    location/Qualifiers
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AR125603
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AR125604
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AR125603
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                                                                                                                                                    1 (bases 1 to 1721)
Pecker, I., Vlodavsky, I., Friedman, Y.
Heparanase specific molecular probes
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Pecker, I., Vlodavsky, I., Friedman, Y
Heparanase specific molecular probe
medical applications
Patent: US 6177545-A 1 23-JAN-2001;
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23; Conser
                                                                                                                                medical applications Patent: US 6177545-A 3 23-JAN-2001;
                                                                                                                                                                                              Unknown
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from patent US 6177545.
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IMAGE:30340461 5', mRNA sequence.

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CB988510.1 GI:30283030

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Homo sapiens (human)

RCANISM Homo sapiens (human)

THORS

NIH-MGC http://mgc.nci.nih.gov/

NARIONAL COMPACTIONAL STRENCE

NIH-MGC http://mgc.nci.nih.gov/

NARIONAL COMPACTIONAL STRENCE

NARIONAL CONTACT: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Dr. Stefan Hansson

CDNA Library Preparation: Michael J. Brownstein (NHGRI) with help

and advice from Piero Carninci (RIKEN)

CONA Library Parayed by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be

found through the I.M.A.G.E. Consortium/LLNL at:

http://inage.llnl.gov

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ALIGNMENTS

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Robert Strausberg, Ph.D Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be
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/lab host="NH108 TonA"
/clome lib="NH108 TonA"
/clome lib="NH MGC 147"
/clome lib="NH MGC 147"
/note="Organ: placenta; Vector: pBluescriptR; Site 1:
/note="Organ: placenta; Vector:
/tissue_type="ductal carcinoma, cell line"
/lab_host="DH10B (phage-resistant)"
/clone_lib="NH_MGC_110"
/clone_tib="NH_MGC_110"
/note="Organ: pancreas; Vector: pOTB7; Site_1: XhoI;
/note="Organ: pancreas; Vector: pOTB7; Site_1: XhoI;
Site_2: EcoRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/XhoI sites using the
Directionally cloned into EcoRI/XhoI sites using the
following 5' adaptor: GGCACGAG(G). Library constructed by
Ling Hong in the laboratory of Gerald M. Rubin (University
of California, Berkeley) using ZAP-cDNA synthesis kit
                                                                                                                                                                                                                                                                                                                                                                                                 organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
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/clone="IMAGE:30340461"
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mol_type="mRNA"
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one IMAGE:6250265
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1201 bp mRNA linear EST 31-MAY-200: AL545270 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens cDNA clone CSUDIOZ8YF04 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODIO59CGOBQPl&cluster=2469.r. Contact:
Feng Liang Email: fliang@lifetch.com URL:
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODIO59CGOBQP1.
Location/Qualifiers
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On Feb 15, 2001 the
Contact: Genoscope
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1 (bases 1 to 1185)

Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

Full-length cDNA libraries and normalization
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                                                                                                                                                                                                          TTCGATCCCAAGAAGGAATCAAC 23
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/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="Ist strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
a 293 c 293 g 280 t 39 others
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Note: this is a NIH_MGC Library."
271 c 227 g 219 t 4 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODIO59YN15"
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Pred. No. 4.
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                                                                                                                                                                                                                                     Aedes aegypti (yellow fever mosquito)
Aedes aegypti
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Aed
1 (bases 1 to 494)
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Feng Liang Email : fllang@llfetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODIO28DC02QP1.
Location/Qualifiers
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Email: enta@tigr.org
Library was provided
State University:
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                                                                                                                                Department
                                                                                                                                                     Contact: Brendan Loftus
                                                                                                                                                                     Other_GSSs: CSU-K33r.41K4.SP6
                                                                                                                                                                                      Loftus,B., Shetty,J., Severson,D., B
End sequencing of Aedes aegypti BACs
Unpublished
                                                                                                                                                                                                                                                                                                                                                          CC066085.1 GI:29904591
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1 (bases 1 to 1201)
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                                                        Fax: 301-838-0208
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                                                                         Medical Center Drive, 301-838-3543
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/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="Ist strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
a 282 c 305 g 279 t 43 others
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db_xref="taxon:9606"
                                                                                                                              of Eukaryotic Genomics
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Primates;
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Pred. No. '
                   Susan Brown
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                   and
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                   Dennis Knudson at Colorado
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Zea mays
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.

1 (bases 1 to 711)
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Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                        Tel: 301-838-5843
Fax: 301-838-0208
                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Cathy Whitelaw
                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                                                                                            Class: sheared ends.
                                                                                                                                                                                                                                                                                                                                                                                        9712 Medical Center Drive,
                                                                                                                                                                                                                                                                                                                                           Email: whitelaw@tigr.org
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TTTGATCGCAAGAAGGAATCAA 332
                             TTCGATCCCAAGAAGGAATCAA 22
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                                                                                                                                    /clone="ZMMBMa0042018"
/clone lib="ZM2 0.7 1.5 KB"
/note="Vector: pBCSK-; Site_1: HincII; 0.7-1.5
methylation filtered genomic DNA library"
a 186 c 158 g 206 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_lib="CSU-K33r" .
/note="Vector: pBeloBAC11; Site_1: HindIII" .
78 c 123 g 116 t
                                                                                                                                                                                                                                                                                         Location/Qualifiers
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/strain="Rexville"
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/mol_type="genomic DNA"
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/strain="B73"
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Pred. No. 3
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                                                                           7e+02
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RESULT 7

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genomic survey sequence.
BZ539243
BZ539243.1 GI:27087679
GSS.
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1 Similarity 90.9%;
20; Conservative
                              Unpublished
"Other_ESTs: fc85e07.xl
                                                                                             i (bases 1 to 581)
Clark, M., Johnson, S.L., Lehrach, H., Lee, R., Li, F., Marra, M., Eddy, S., Hillier, L., Kucaba, T., Martin, J., Beck, C., Wylie, T., Underwoc, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R.
Contact: Stephen L. Johnson
                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Actinopterygii; Neopterygii; Teleostei; Cyprinidae; Danio.
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Whitelaw,C.A., Quackenbush,J., Van Aken,S., Utterback,T.,
A., Fraser,C.M., Budiman,M.A., Bedell,J.A., Rohlfing,T.,
R.W., Nunberg,A., Robbins,D. and Lakey,N.
Consortium for Maize Genomics
                                                                                                                                                                                                                                                                                                                                                                        AI965004 linear EST 07-0
fc85e07.yl Zebrafish WashU MPIMG EST Danio rerio cDNA clone
IMAGE:3728196 5' similar to gb:X17206 40S RIBOSOMAL PROTEIN
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                                                               WashU Zebrafish EST Project 1998
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                                                                                    and Wilson, R.
                                                                                                                                                                                                                                                                                       Danio rerio (zebrafish)
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/clone lib="ZM2 0.7 1.5 KB"
/clone lib="ZM2 0.7 1.5 KB"
/note="Vector: pBCSK-; Site_1: HincII; 0.7-1.5
methylation filtered genomic DNA library"
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/strain="B73"
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Pred. No. 3.7e+02;
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Cycadophyta; Cycadales; Cycadaceae; Cycas. 1 (bases 1 to 52)
Brenner, E.D., Katari, M.S., Dedhia, N.N., O'Shaughnessy, A.L., Balija
                                                                                                                                       Cycas rumphii
                                                                                                                                                                                                              CB091033.1 GI:27915225
EST.
                                                                                                                                                                                                                                                                          CB091033 592 b
gy83f07.gl Cycad Leaf Library
gy83f07, mRNA sequence.
CB091033
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Fax: 314 286 1810

Email: zbrafish@watson.wustl.edu

cDNA Library Preparation: Matthew Clark. cDNA Library Arrayed by:

Matthew Clark. DNA Sequencing by: Washington University Genome

Sequencing Center Clone distribution: Genome Systems, St. Louis,

Missouri (web address: www.genomesystems.com) (email contact:

info@genomesystems.com) and Research Genetics, Huntsville, Alabama

(web address: www.resgen.com) (email contact: info@resgen.com) and

RessourcenZentrumPrimarDatenbank, Berlin, Germany (web address:
                                                                                                                                                                          Cycas rumphii
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stage embryos"
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/mol_type="mRNA"
/db_xref="taxon:7955"
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                                                                                                                                                      Lita Annenberg Hazen Genome Sequencing Center Cold Spring Harbor Laboratory PO Box 100, Cold Spring Harbor, NY 11724, USA Tel: 516 367 8884
Fax: 516 367 8874
                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Cycadophyta; Cycadales; Cycadaceae; Cycas. 1 (bases 1 to 594)
Brenner, E.D., Katari, M.S., Dedhia, N.N.; O'Shaughnessy, A.L., Balija
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High quality sequence stop: 592.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: mccombie@cshl.org
Plate: gy83 row: f column: 07
Seq primer: -21M13UnivRev
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 he89d02.g1 Cycad Leaf Library he89d02, mRNA sequence.
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Fax: 516 367 8874
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PO Box 100, Cold Spring Harbor, NY 11724, USA
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Seq primer: -21M13UnivRev
                                                                                                                                     Email: mccombie@cshl.org
                                                                                                                                                                                                                                                         Contact: W. Richard McCombie
                                                                                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                            Expressed tag sequences from Cycas ovule (NYBG)
                                                                                                                                                                                                                                                                                                                  Stevenson, D.
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                                                                             High quality sequence stop: 594.
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V., Martienssen, R.A., McCombie, R.W., Benfey, P.,
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/note="Organ: Young leaf; Vector: pBK-CMV; Site_1: Xho I;
/note="Organ: Young leaf; Vector: pBK-CMV; Site_1: Xho I;
/site_2: Eco RI; Date: Completed 09/01/2001. Submitted to
CSHI_09/05/2001. Sample: Young emergent leaves. From New
York Botanical Garden Conservatory accession number 808/59
A (collected 03/2001). Library: Made using Stratagene's
ZAP Express Vector Kit. Library was size fractionated for
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/db_xref="taxon:58031"
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/organism="Cycas rumphii"
/mol_type="mRNA"
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  20;
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DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 835 Std Error: 0.00
Seq_primer: -40UP from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 401)
NCI-CCAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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401 bp mRNA linear EST 14-DEC-1999 ts25h10.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2229667 3' similar to contains Alu repetitive element;, mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
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                                                                                                               /clone_lib="NCI_CGAP_Pan1"
/note="Organ: pancreas; Vector: pCMV-SPORT6; Site_1: Sal1;
Site_2: Not1; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.72 kb. Life Technologies catalog #:
11548-013"
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/clone="he89d02"
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                                                                                                                                                                                                                                                                             'mol_type="mRNA"
'db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                  organism="Homo sapiens"
                                                                                                                                                                                                                                      tissue_type="adenocarcinoma"
                                                                                                                                                                                                                                                        clone="IMAGE: 2229667"
                                                                                                                                                                                                                   lab_host="DH10B"
                  79.1%;
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Score 18.2; DB 9;
Pred. No. 6.1e+02;
D; Mismatches 3;
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               Umea Plant Science Center
Department of Plant Physiology
University of Umea, 901 87 Umea, Sweden
Tel: +46 90 786 5279
Fax: +46 90 786 6676
Email: rupall.bhalgrag@plantphys.umu.se.
                                                                                                                                                                                                                                             Populus tremula x Populus tremuloides
Populus tremula x Populus tremuloides
Populus tremula x Populus tremuloides
Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eu
; eurosids I, Malpighiales; Salicaceae; Populus.
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T040G08 Populus apical shoot cDNA library Populus tremula x Populus
tremuloides cDNA 5 prime, mRNA sequence
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Department of Plant Physiology
University of Umea, 901 87 Umea, Sweden
Tel: +46 90 786 5279
Fax: +46 90 786 6676
Email: rupali.bhalerao@plantphys.umu.se.
Location/Qualifiers
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BU821234
                                                                                                                                                                      1 (bases 1 to 519)
Unneberg, P., Bhalerao, R.R., Jansson, S. and Sterky, F.
The poplar tree transcriptome: Analysis of expressed
from multiple libraries
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EST.
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                                                                                                                                                       Unpublished
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Unneberg, P., Bhalerao, R.R., Jansson, S. and Sterky, F.
The poplar tree transcriptome: Analysis of expressed
                                                                                                                                     Contact: BHALERAO RUPALI R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: BHALERAO RUPALI R.
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/mol_type="mRNA"
/db_xref="mRNA"
/tissue_type="camblum"
/clone_lib="Populus tremula c
a 165 c 84 g 116 t
Location/Qualifiers
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Pred. No. 6.4e+02;
0; Mismatches 3;
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WhiteLaw,C.A., Quackenbush,J., Van Aken,S., UA, Fraser,C.M., Budiman,M.A., Bedell,J.A., A., R.W., Numberg,A., Robbins,D. and Lakey,N.
Consortium for Maize Genomics
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Contact: Cathy Whitelaw
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Fax: 301-838-0208
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1 (bases 1 to 603)
1 (bases 1 to 603)
1 Town,C.D., Van Aken,S., Utterback,T., Koo,H. and Fraser,C.M.
Whole genome shotgun sequencing of Brassica oleracea
Unpublished
Other_GSSS: BOHSC40TR
Contact: Chris Town
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RESULT 1 AROBO 673 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM Result No. REFERENCE AUTHORS TITLE JOURNAL Score Sequence 2 f AR080673 AR080673.1 1 (bases 1 to 24) Pecker, I., Vlodaveky, I. and Feinstein, E. Polymucleotide encoding a polypeptide having heparanase activity and expression of same in transduced cells Patent: US 5968822-A 2 19-OCT-1999; Unknown. Unclassified. Unknown. AR080673 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 Query 100.0 100. 100.0 100.0 100. N 1593 6 1662 9 1662 9 1703 6 1713 6 17721 6 17721 6 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17721 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 17722 7 177 Length from GI:10007403 patent US AR080673 AR080673 AR125608 AR125608 AR287440 BD074426 BD074426 BD074426 AR210040 AF984160 AF984167 AR156691 AR080679 AR156691 AR125603 AR125603 AR221285 AR221285 AR221285 AR2287436 AR243203 ALIGNMENTS 24 bp 5968822. DNA linear BBO74426 BR210040 BD136761 AF281160 AF281160 AF1084467 AF152376 AF15691 AX0346343 AX03469 AX03469 AR125603 AR125603 AR125603 AR1251286 AR2212186 AR231203 AR243203 AR243303 AR2874336 AR156692 AX034645 AX147946 AF165154 AF165154 AF14325 BC05133 BD074431 BD074431 BD074431 AR235866 AX019348 BD131218 BD131218 AC138159 AC138159 AR080673 AR080678 AR125608 Description PAT Sequence Sequence Sequence Polynucle Polynucle Sequence Human Pla Bos tauru Homo sapi Sequence Polynucle Polynucle Homo sapi Homo sapi Homo sapi Homo sapi Delynucle Polynucle Sequence Sequence Human hep Homo sapi Homo sapi Rattus no 31-AUG-2000 Rattus no

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18 Pecker, I., Vlodavsky, I. and Elena, F.

18 Pecker, I., Vlodavsky, I. and Elena, F.

18 Polyncleotide encoding polypeptide having heparanase activity and expression of the polypeptide in induced cell

19 Patent: JP 2001514855-A 2 18-SEP-2001;

10 INSIGHT STRATEGY & MARKETING LTD, HADASIT MEDICAL RESEARCH SERVICES & DEVELOPMENT LTD

10 Nucleic acid
20 Nucleic acid
20 Nucleic acid
21 JP 2001514855-A/2
22 PD 18-SEP-2001
23 PD 18-SEP-2001
24 PD 18-SEP-2001
25 PF 31-AUG-1998 JP 2000508806
26 PF 31-AUG-1998 JP 2000508806
27 PR 20-SEP-1997 US 08/922170,02-JUL-1998 US 09/109386 PI IRIS PECKER, ISBAEL VLODAVSKY, PEINSTEIN ELENA
26 PC 12N15/09, A61K38/00, A61P9/10, A61P17/00, A61P29/00, A61P35/00, PC A61P37/00, C12N0/10 C12N0/16 GONN31/15 GONN31/16 C12N0/16 C12N0/16 GONN31/15 GONN31/16 C12N0/16 C12N0/16 GONN31/16 GONN31/16 C12N0/16 C12N0/16 GONN31/16 C12N0/16 C12N0/1
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1 (bases 1 to 24)
Pecker, I., Vlodavøky, I., Friedman, Y.
Heparanase specific molecular probes
medical applications
Patent: US 6531129-A 7 11-MAR-2003;
Location/Qualifiers
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CC and
CC expression of
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Location/Qualifiers
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Conservative 0
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                                                                                                           /organism='Nucleic
Location/Qualifiers
/organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
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PAT 18-SEP-2002

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PC A61P43/
A61K39/395,
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CC expression of t
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Pecker,I., Vlodavsky,I. and Elena,F.
Pecker,I., Vlodavsky,I. and Elena,F.
Polynucleotide encoding polypeptide having heparanase expression of the polypeptide in induced cell patent: JP 20015;4855-A 7 18-SEP-2001;
INSIGHT STRATEGY & MARKETING LTD, HADASIT MEDICAL RESE & DEVELO,MENT LTD
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AR210040
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702-SEP-1997 US 08/922170,02-JUL-1998 US 09/109386 PI PECKER, ISRAEL VLODAVSKY, FEINSTEIN ELENA C12N15/09,A61P38/00,A61P9/10,A61P17/00,A61P29/00,A61P35/00,C12N15/09,A61K38/00,A61P9/10,A61P17/00,A61P29/00,A61P35/00,
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Conservative 0;
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ilarity 100.0%;
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18-SEP-2001
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                                                                                                                                                                                                                                                                                                                                                   /organism='Nucleic
Location/Qualifiers
                                                                                                                                                                                                                                                                             /mol_type="genomic DNA"
/db_xref="taxon:32644"
4 c 6 g
                                                                                                                                                                                                                                                                                                                         organism="unidentified"
                                                           from
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OS Unidentified
PN JP 2002504376-A/1
PD 12-FEB-2002
PF 18-FEB-1999 JP 200
PR 24-FEB-1998 US
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Heinrikson,R.Leroy., Fairbanks,M.B. and Mildner,A.M.
Human platelet heparanase polypeptides, polynucleotide
that encode them, and methods for the identification of
that alter heparanase activity
Patent: US 6387643-A 1 14-MAY-2002;
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Human platelet heparanase polypeptide, polynucleotide
encoding the same and method of identifying compound of
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PR 24-FEB-1998 US 60/075706,26-MAR-1998 US 60/079401 PI
ROBERT L HEINRIKSON,MICHAEL B FAIRBANKS,ANA M MILDNER PC
C12N15/09,C07K16/40,C12N1/21,C12N5/10,C12N9/24,C12Q1/34,C12N15/
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Heinrikson, R.L., Fairbanks, M.B. and Mildner, A.M.
Heinrikson, R.L., Fairbanks, M.B. and Mildner, A.M.
Human platelet heparanase polypeptide, polynucleotide molecule
encoding the same and method of identifying compound changing
encoding the same and method of identifying compound changing
Patent: JP 2002504376-A 1 12-FEB-2002;
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JP 2002504376-A/1.
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Topology: Linear;
Human platelet hepara
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12-FEB-2002
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370 c 369 g
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/db_xref="taxon:32644"
_370 c 369 g 4:
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                                                                                                                                                              924
                  Homo sapiens heparanase mRNA, AF084467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (12-APR-2001) Laboratory of National Institute of Animal Industry, 5, Tsukuba, Ibaraki 305-0901, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (22-JUN-2000) Laboratory of I
National Institute of Animal Industry,
5, Tsukuba, Ibaraki 305-0901, Japan
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AF084467.1 GI:5870623
                                                             AF084467
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On Apr 12, 2001 this sequence version replaced gi:9408602
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 (bases 1 to 1662)
Kizaki,K., Nakano,H., Takahashi,T., Imai,K. and Hashizume,K.
Expression of Heparanase mRNA in Bovine Placenta During Gestation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bos taurus heparanase mRNA, AF281160
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Xizaki, K., Nakano, H., Takahashi, T., Imai, K. and Hashizume, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
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/product="heparanase"
/protein id="hapf97301.2"
/db_xref="ds:13606095"
/db_xref="ds:13606095"
/translation="mlacrkpglrppllllllpllgplgpcspgTpaaaapaddaaele
FFTERPLHLYSpafiseTidanlaTdpreffferGsKlrflempFQeQvLtreQvQk
FLIFDPKKEPAFEERSYMLSQSNQDICKSGSIPSOVEEKLRLEMPFQEQVLLREQVQK
KFTNSTYSRSSYDMLYTFASCSGLNLFGVNALLRTTDMHWDSSNAPAQLLLDYCSSKNY
NISWELGNEPNSFQRKAGIFINGRQLGEDFIEFRKLLGKSAFKNAKLYGPDIGQPRRN
TVKMLKSFLKAGGEVIDSVTWHHYYNGRIATKEDFLNEPILDTFISSVQKTLRIVEK
IRPLKKYWLGETSSAFGGGAPFLSNTFAAGFMALDKJGLSARMGIETVNRQVLFGAGN
YHLVDGNFEPLPDYWLSLLFKKLYGNKVLMASVKGPDRSKFRVYLHCTNTKHPRYKEG
DLTLYALNLHNVTKHLELPHHLFNKQVDKYLIKPSGTDGLLSKSVQLNGQILKMVDEQ
DLTLYALNLHNVTKHLELPHHLFNKQVDKYLIKPSGTDGLLSKSVQLNGQILKMVDEQ
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404 c 402 g 421 t
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25. .1662
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'db_xref="taxon:9913"
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Kussie, P.H., Hulmes, J.D., Ludwig, D.L., Patel, S., Navarro, E.C. Seddon, A.P., Giorgio, N.A. and Bohlen, P. Cloning and functional expression of a human heparanase gene Biochem. Biophys. Res. Commun. 261 (1), 183-187 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24;
                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1694)
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401 MSRB, Durham, NC 27710, 1
Location/Qualifiers
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Dempsey,L.A., Plummer,T.B., Coombes,S.L. and Platt,J.L.
Heparanase expression in invasive trophoblasts and acute vascular
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/protein_id="AAD54516.1"
/db_xref="GI:5870624"
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platelets"
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'cell_line="mekakaryocyte"
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180 Varick Street, New York, NY 10014, USA
Location/Qualifiers
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Seddon, A.P., Giorgio, N.A.
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Freeman, C.Geoffrey., Hulett, M.Darren., F
Hamdorf, B.James.
Isolated nucleic acid molecule encoding
and uses therefor
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                                                                                                                                                                                              Patent: US 6242238-A 12 05-JUN-2001;
                                                                                                                                                                                                                                                                                     Unclassified
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                       GTAGTGATGCCATGTAACTGAATC 24
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TQEPLHLVSSSFLSVTIDANLATDRRFLILIGSPKLRTLAGGISPAYLRFGGTKTDFL
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KNSTYSRSSUPULYTFANCSGLDLIFGLNALLRTADLQMNSSNAQLLLDYCSSKGYNI
SWELGNEPNSFLKXADIFINGSQLGEDFIQLHKLLRKSTFKNAKLYGPDVGQPRRKTA
KMLKSFLKAGGEVIDSVTWHHYYLNGRTATREDFLNPDVLDIFISSVQKVFQVVESTR
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LYDEREDPD YWLSLLFKLYGTKVLMASVQGSKRKLRVYLHCTNTDNERYKEGDL
TLYAINLHNYTKYLRLPYFESNKYDDKYLLFBLGPHGLLSKSVQLNGLTLKMVDDQTL
PPLMEKPLRPGSSLGLPAFSYSFFVIRNAKVAACI"
                                                                                                                                                               Location/Qualifiers
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/product="heparanase"
/protein_id="AAD45669.1"
/db_xref="GI:5616197"
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'db_xref="taxon:9606"
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Best Local :
Query Match
Best Local Similarity
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                                                                                                                                                                                        1 (bases 1 to 1721)

Pecker,I., Vlodaveky,I. and Feinstein,E.

Polynucleotide encoding a polypeptide having
and expression of same in transduced cells

Patent: US 5968822-A 9 19-OCT-1999;

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AR080679 17
Sequence 9 from patent US
AR080679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GTAGTGATGCCATGTAACTGAATC 24
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 12 from Patent AX034643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent: EP 1032656-A 12 06-SEP-2000; UNIV AUSTRALIAN (AU)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hamdorf, B.J., Freeman, C.G., Hulett, M.D. Isolated nucleic acid molecule encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AX034643.1 GI:10303224
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                                                                                                                                                                                                                                                                                                                                                               Unclassified.
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//protein_id="cac10139.1"
//db_xref="c1:1030325"
//db_xref="c1:10303255"
//db_xref="c1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PPLMEKPLRPGSSLGLPAFSYSFFVIRNAKVAACI"
                                                                                                       /organism="unknown"
413 c 410 g
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mol_type="genomic DNA"
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100.0%; Pred. No. 0.36;
/ative 0; Mismatches
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Score 24; DB 6;
Pred. No. 0.36;
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US 5968822.
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                         Length 1721;
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REFERENCE
AUTHORS
TITLE
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AR080680/C
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                BASE COUNT
ORIGIN
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FEATURES
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Search completed: February 16, 2004, 11:43:03 Job time: 115.587 secs
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                                                                                                        Query Match 100.0%; Score 24; DB 6; Length 1721; Best Local Similarity 100.0%; Pred. No. 0.36; Matches 24; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                              Unknown.
Unknown.
Unknown.
Unclassified.
1 (bases 1 to 1721)
1 (bases 1 to 1721)
Pecker, I., Vlodavsky, I. and Feinstein, E.
Polynucleotide encoding a polypeptide having heparanase activity and expression of same in transduced cells
and expression of same in transduced cells
Patent: US 596882-A 11 19-OCT-1999;
Location/Qualifiers
1 1721
                                                   956 GTAGTGATGCCATGTAACTGAATC 933
                                                                                                                                                                                                                                                                                                                                                           AR080680 1721 bp | Sequence 11 from patent US 5968822. AR080680 GI:10007410
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Database
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DB seq length:
N Geneseq 19Jun03:*

1: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*
2: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*
3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*
3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*
4: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*
5: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1984.DAT:*
6: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1986.DAT:*
7: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1987.DAT:*
8: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1987.DAT:*
9: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*
10: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*
11: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*
12: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1991.DAT:*
13: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1993.DAT:*
14: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1993.DAT:*
15: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1995.DAT:*
16: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1995.DAT:*
17: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*
18: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*
19: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*
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23: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001A.DAT:*
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26: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001A.DAT:*
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28: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001A.DAT:*
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24
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Maximum Match 100%
Listing first 45 summaries
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARII

Result.	Score	Query	Query Match Length DB	89	ID	Description
1	24	100.0	24	20	AAX35643	PCR primer used to
N	24	100.0	24	20	AAX35647	PCR primer used to
w	24	100.0	24	21	AAA75045	PCR primer HPL229
4	24	100.0	24	21	AAA75050	PCR primer HPL229
5	24	100.0	24	21	AAA75067	PCR primer Hpl 229
6	24	100.0	24	21	AAZ33294	Human heparanase P
c 7	24	100.0	1584	24	ABL40753	Chicken signal pep
ი 8	24	100.0	1593	20	AAZ11236	Human pre-prohepar

Human secreted pro	AAC15008	21	188		16.6	45	a
~	ABQ76678	25	218336		16.8	44	
Nucleotide sequenc	AAF84800	22	110000	70.0	•	43	ი
Human novel polynu	ABX74008	25	2126	70.0	16.8	42	ი
	ABX74006	25	2126	70.0	16.8	41	a
Human genomic DNA	AAS26659	22	2126	70.0	16.8	40	a
	AAS26657	22	2126	70.0	16.8	39	a
Human novel polynu	ABX74005	25	1996	70.0	16.8	38	ი
Human genomic DNA	AAS26656	22	1996	70.0	16.8	37	a
Human novel polynu	ABX73361	25	474	70.0	16.8	36	Q
Human cDNA encodin	AAS26020	22	474	70.0	16.8	35	a
Human prostate exp	ABV53985	23	400	70.0		34	a
Human heparanase-2	AAD29202	24	1847	71.7	17.2.	IJ	ი
Human heparanase-2	AAD29204	24	1685	71.7		32	ი
Human heparanase-2	AAD29203	24	1674	71.7	•	31	a
	AAD29205	24	1511	71.7		30	ი
Novel human polynu	AAF64922	22	397	71.7	17.2	29	ი
	ABV87579	24	123	71.7	17.2	28	ი
Enterococcus faeca	AAH01252	22	2275	73.3	•	27	ი
Tobacco plant resi	AAZ33700	20	242	73.3	17.6	26	
Mouse heparanase c	AAA91113	22	2396	75.8	18.2	25	ი
cDNA encoding a mu	AAA75081	21	2396	75.8		24	ი
Murine heparanase	AAX37261	20	1380	75.8		23	ი
Nucleotide sequenc	AAA75080	21	44848	89.2	21.4	22	a
cDNA encoding a hu	AAX86671	20	3726	100.0	24	21	ი
cDNA encoding a hu	AAA75053	21	1899	100.0	24	20	ი
cDNA encoding a hu	AAX35650	20	1899		24	19	Ω
n heparar	AAH20940	22	1724	100.0	24	18	O
Seq ID No: 14 of W	AAX37260	20	1723	100.0	24	17	ი
Human cDNA encodin	AAF93788	22	1722	100.0	24	16	O
Human heparanase,	AAA91112	22	1721	100.0	24	15	a
Human heparanase n	AAZ33290	21	1721	100.0	24	14	ი
Human heparanase e	AAZ39195	21	1721	100.0	24	13	ი
cDNA encoding a hu	AAA75051	21	1721	100.0	24	12	ດ່
cDNA encoding a hu	AAX35648	20	1721	100.0	24	11	ი
386	AAX37259	20	1713	100.0	24	10	ი
Human heparanase e	ABZ22816	25	1669	100.0	24	9	a
heparanase	ABZ22816	25	1669		24		9

ALIGNMENTS

RESULT 1 AAX35643 PRESENTATION OF STREET Heparanase; hp; modulator; heparin-binding growth factor; cellular response; cytokine; cell interaction; plasma lipoprotein; cellular susceptibility; infection; disintegration; neurodegenerative plaque; wound healing; angiogenesis; restenosis; athersolerosis; inflammation; neurodegenerative disease; neutralise; athersolerosis; miflammation; autoimmune lesion; renal failure; 02-JUL-1998; 02-SEP-1997; Synthetic plasma heparin; micrometastasis; autoimmune PCR primer; ss. 31-AUG-1998; WO9911798-A1. 09-JUL-1999 (first entry) AAX35643; AAX35643 standard; DNA; 24 BP (FRIE/) FRIEDMAN M M. (HADA-) HADASIT MEDICAL RES SERVICES & DEV. 11-MAR-1999. PCR primer used to amplify human hp3 98WO-US17954. 98US-0109386. 97US-0922170. CDNA.

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Matches 24
                                                                                                                                                                                                                                                                                                                  cellular response; cytokine; cell interaction; plasma lipoprotein; cellular susceptibility; infection; disintegration; neurodegenerative plaque; wound healing; angiogenesis; restenosis; athersclerosis; inflammation; neurodegenerative disease; neutralise; plasma heparin; micrometastasis; autoimmune lesion; renal failure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      heparin-binding growth factors, cellular responses to heparin-binding growth factors and cytokines, cell interaction with plasma lipoproteins, cellular susceptibility to viral, protocal and bacterial infections or disintegration of neurodegenerative plaques. Heparanase may be useful for conditions such as wound healing, angiogenesis, restenosis, atherselerosis, inflammation, neurodegenerative diseases, and viral
WPI; 1999-302255/25
                                                                                                                                                                                                              11-MAR-1999.
                                                                                                                                                                                                                                                                                                                                                                            Heparanase; hp; modulator; heparin-binding growth factor; cellular response; cytokine; cell interaction; plasma lipoprotein;
                                         Feinstein E,
                                                                                                                                    02-SEP-1997;
                                                                                                                                                 02-JUL-1998;
                                                                                                                                                                               31-AUG-1998;
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                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                           PCR primer used to amplify human hp3 cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAX35647 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infections. Mammalian heparanase can be used to neutralize plasma heparin, and anti-heparanase antibodies may be applied for immunodetection and diagnosis of micrometastases, autoimmune lesions, and renal failure in biopsy specimens, plasma samples, and body fluids. PCR primers AAX35642-43 were used to amplify hp3 cDNA, in the course of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The specification describes a polypeptide having heparanase activity. The recombinant protein is used as a modulator of
                                                                                                      (FRIE/)
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                                                                                                                                                                                                                                                                                                     primer,
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                                                                       FRIEDMAN M M.
HADASIT MEDICAL RES SERVICES & DEV.
INSIGHT STRATEGY & MARKETING LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Page 22; 63pp; English.
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                                       Pecker I,
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                                                                                                                                    98US-0109386.
97US-0922170.
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100.0%; Pred. No. 0.012;
tive 0; Mismatches
                                       Vlodavsky I;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           infections. Mammalian heparanase can be used to neutralize plasma heparin, and anti-heparanase antibodies may be applied for immunodetection and diagnosis of micrometastases, autoimmune lesions, and renal failure in biopsy specimens, plasma samples, and body fluid PCR primers AAX35646-47 were used to amplify hp3 cDNA, in the course the invention.
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                                                                                                                                                                                                                                                                                                                                               (INSI-)
(HADA-)
(FRIE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             heparin-binding growth factor; cytokine; neurodegenerative plaque; wound healing; infection; burn; angiogenesis; restenosis; inflammation; neurodegenerative disease; atherosclerosis; inflammation; neurodegenerative disease; PCR primer; Gerstmann-Straussler Syndrome; Creutzfeldt-Jakob disease; PCR primer;
                                                                                                                                              New polynucleotides encoding useful in wound healing and i
                                                                                                                                                                                                                                   WPI; 2000-579289/54.
                                                                                                                                                                                                                                                                                          Pecker
                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-SEP-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200052178-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; heparanase; gene therapy; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCR primer HPL229 used to amplify human cDNA encoding heparanase
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAA75045;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 24 BP; 7 A; 4 C; 6 G; 7 T; 0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human polynucleotide useful for treating angiogenesis, restenosis, and inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L4-FEB-2000; 2000WO-US03542.
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                                                                                                                                                                                                                                                                                       I, Vlodavsky
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                                                                                                        ncoding a polypeptide having heparanase activity, ng and in gene therapy, particularly in treating autoimmunity, neurodegenerative diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24
                                                                                                                                                                                                                                                                                          Feinstein
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Pred. No. 0.012;
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The present PCR primer was used to amplify a human cDNA sequence.

Disclosure, tumour,

Page 44; 152pp; English

inflammation,

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RESULT 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; heparanase; gene therapy; tumour; inflammation; autoimmunity; heparin-binding growth factor; cytokine; neurodegenerative plaque; wound healing; infection; burn; angiogenesis; restenosis; atherosclerosis; inflammation; neurodegenerative disease; Gerstmann-Straussler Syndrome; Creutzfeldt-Jakob disease; PCR primer;
                                                                                                                                                                                                                                                                                                                                           New polynucleotides encoding a polypeptide having heparanase activity, useful in wound healing and in gene therapy, particularly in treating tumour, inflammation, autoimmunity, neurodegenerative diseases
The present PCR primer was used to amplify a human cDNA sequence, which encoded a protein with heparanase catalytic activity. The heparanase (hpa) polynucleotide is useful in gene therapy, particularly in treating tumour, inflammation or autoimmunity. Particularly, the polynucleotide is useful in modulating the bioavailability of heparin-binding growth factors, cellular responses to heparin-binding growth factors (e.g. bFGF) and cytokines (e.g. interleukin (IL)-8),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 24
                                                                                                                                                                                                                                                                                 Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pecker
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Creutzfeldt-Jakob disease), and some viral, bacterial or protozoa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000-579289/54
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INSIGHT STRATEGY & MARKETING HADASIT MEDICAL RES SERVICES
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                                                                                                                                                                                                                                                                                                                                        n wound healing and in gene inflammation, autoimmunity,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FRIEDMAN M M.
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                                                                                                                                                                                                                                                                             Page 44; 152pp;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7 T;
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which encoded a protein with heparanase catalytic activity. The heparanase (hpa) polynucleotide is useful in gene therapy, particularly in treating tumour, inflammation or autoimmunity. Particularly, the polynucleotide is useful in modulating the bioavailability of heparin-binding growth factors, cellular responses to heparin-binding growth factors (e.g. bFGF) and cytokines (e.g. interleukin (IL)-8), cell interaction with plasma lipoproteins, cellular susceptibility to certain viral and some bacterial and protozoa infections, or disintegration of neurodegenerative plaques. The polynucleotide is also useful in wound healing (e.g. thermal, chemical or radiation burns) and in the treatment of angiogenesis, restenosis, atherosclerosis, inflammation, neurodegenerative diseases (Gerstmann-Straussler Syndrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and in the treatment of angiogenesis, restenosis, atherosclerosis, inflammation, neurodegenerative diseases (Gerstmann-Straussler Syndrome or Creutzfeldt-Jakob disease), and some viral, bacterial or protozoa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; heparanase; gene therapy; tumour; heparin-binding growth factor; cyckine; wound healing; infection; burn; angiogene atherosclerosis; inflammation; neurodegen
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                                                                                                                                                                                                                                                                                                            The present PCR primer was used to amplify a human cDNA sequence, which encoded a protein with heparanase catalytic activity The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New polynucleotides encoding useful in wound healing and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            atherosclerosis; inflammation; neurodegenerative disease;
Gerstmann-Straussler Syndrome; Creutzfeldt-Jakob disease; PCR primer;
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                                                                                                                                                                                                                                                                                                                                                                                                Disclosure;
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(FRIE/)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INSIGHT STRATEGY & MARKETING HADASIT MEDICAL RES SERVICES
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                                                                                                                                                                                                                                                                                                                                                                                                Page 45; 152pp; English.
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                                                                  or radiation burns),
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                      The present invention describes heparanase-specific molecular probes, CC useful for methods of detecting heparanase in situ. The probes and anti-heparanase antibodies are used to detect or quantify the expression of heparanase, for diagnosis and monitoring of diseases (especially metastasis), for treatment of heparanase-associated diseases (e.g. tumours, (ademo)carcinoma, squamous cell carcinoma, treatocarcinoma, metastases) derived from liver, prostate, bladder, breast, ovary, celon, skin, intestine, stomach, uterus and pancreas, kidney disease, diabetes and inflammation, haemorrhagic nephritis, nephrotic syndrome, sepsis and inflammatory or autoimmune disease), for targeted CC drug delivery (e.g. of anticancer agents) and as research reagents. The present sequence represents a PCR primer for human heparanase, which very
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Best Local
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                                                                                                                                                                                                                                                                      Heparanase-specific molecular probes useful for diagnosis treatment, e.g. of tumors, and for targeted drug delivery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human;
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Sequence 24
                                                                                                                                                                                                                                           Example; Page 30;
                                                                                                                                                                                                                                                                                                                   WPI; 2000-052944/04
                                                                                                                                                                                                                                                                                                                                            Pecker I,
                                                                                                                                                                                                                                                                                                                                                                       (INSI-) INSIGHT STRATEGY & MARKETING LTD. (HADA-) HADASIT MEDICAL RES SERVICES & DEV. (FRIE/) FRIEDMAN M M.
                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       autoimmune disease; anticancer; kidney disease; PCR primer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antidiabetic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human heparanase PCR primer Hpl-229 SEQ ID NO:7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAZ33294 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 24 BP; 7 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infections.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Creutzfeldt-Jakob disease), and some viral, bacterial or protozoa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          heparanase; hpa; diagnosis; therapy; tumour; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTAGTGATGCCATGTAACTGAATC
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                                                                                                                                                                                                                                                                                                                                            Vlodavsky I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunomodulatory; anti-inflammatory; nephrotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0071739
                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US09255
                                                                                                                                                                                                                                           90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA;
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                                                                                                                                                                                                                                                                                                                                              Friedman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 G;
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Pred. No. 0.012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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Query Match

BP; 7

A; 4 C; 6 G;

T; 0 other;

100.0%;

Score 7

24;

몂 21;

Length 24;

Sequence 1584

BP; 424

A.

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373

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426 Η.

other;

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RESULT 7
ABL40753/c
ID ABL407
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                                   polypeptides can be used to prevent tumour angiogenesis, metastasis and invasion, and to intervene with pathologies associated with impaired heparin-binding growth factors, cellular responses to heparin-binding growth factors and cytokines, cell interaction with plasma lipoproteins, cellular susceptibility to viral, protozoa and bacterial infections or disintegration of neurodegenerative plaques. The present sequence represents a chicken signal peptide/human heparanase chimeric cDNA
                                                                                                                                    The invention relates to an isolated avian and reptile nucleic acid, encoding a polypeptide with heparanase catalytic activity. The signal peptide of the nucleic acid can be used to express membrane-associated or secreted proteins in heterologous expression systems. The encoded
                                                                                                                                                                                                        Disclosure;
                                                                                                                                                                                                                                              Nucleic acid encoding avian and reptile heparanase polypeptide is useful to treat various heparin-related disorders and the signal peptide is useful in production of membrane-targeted or secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mat_peptide
                                                                                                                                                                                                                                                                                                                                                Goldshmidt O,
                                                                                                                                                                                                                                                                                                                                                                                                      20-SEP-2000; 2000US-0666390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US2002034810-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           anti-protozoan; neuroprotective; heparin; chicken; human; chimeric;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Heparanase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chicken signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-JUL-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABL40753;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABL40753 standard; cDNA; 1584
                         sequence
                                                                                                                                                                                                                                    recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                 16-AUG-2001; 2001US-0930218.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 llus gallus
                                                                                                                                                                                                                                                                                                                      2002-338926/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GTAGTGATGCCATGTAACTGAATC
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                                                                                                                                                                                                         Page 24-25;
                                                                                                                                                                                                                                    proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          catalytic; cytostatic; antiviral; antibacterial; enzyme;
                                                                                                                                                                                                                                                                                                                                                Pecker I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  peptide/human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note= "human mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note= "chicken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 *tag=
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                                                                                                                                                                                                        39pp; English.
                                                                                                                                                                                                                                                                                                                                               Vlodavsky I, Michal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "chimeric chicken-human heparanase"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  heparanase chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 0.012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        heparanase signal peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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Query

DB 24;

Length 1584;

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RESULT 8
AAZ11236/c
ID AAZ11236 standard; cDNA;
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                                                                                                                                                                 This sequence encodes the human pre-proheparanase of the invention. This sequence was isolated from human platelets. The heparanase can be used for identifying agents which alter heparanase activity. The heparanase can be used for wound healing or for blocking angiogenesis or inflammation. It can be used for treating e.g. psoriasis, diabetic retinopathy or solid tumours, or for the degradation of heparin and the neutralisation of heparin's anticoagulant properties during surgery. Inhibitors of heparanase activity can be used in the treatment of arthritis, asthma, and other inflammatory diseases, vascular restenosis, atheroscies and other inflammatory diseases, vascular restenosis,
atheroscierosis, tumour growth and progression, fibroproliferative disorders, and central nervous system (CNS) and neurodegenerative diseases. The products can also be used for detection and diagnosis. The purified heparanase, both recombinantly produced human heparanase and heparanase isolated from human platelet activity, allows for the convenient selection of compounds having anti-heparanase activity, i.e. inhibitors of heparanase activity, by measuring inhibition of heparanase activity, inhibitors of heparanase activity, by measuring inhibition of heparanase activity can be measured by blocking heparanase-mediated release of radioactive fragments from in vivo radiolabelled (HSPG)/heparin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                                Claim 2; Fig 7; 57pp; English
                                                                                                                                                                                                                                                                                                                                                                                                  New isolated platelet heparanase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fairbanks
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-MAR-1998;
24-FEB-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; pre-proheparanase; platelet; wound halling; angiogenesis blocker; inflammation; psoriasis; diabetic retinopathy; solid tumour; arthritis; heparin degradation; anticoagulant neutralisation, asthma; CNS disease; heparin degradation; anticoagulant restenosis; atherosclerosis; diagnosis; inflammatory disease; vascular restenosis; atherosclerosis; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human pre-proheparanase coding sequence
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                                                                                                                                                                                                                                                                                                                                                                                  e.g. wound
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fibroproliferative disorder;
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98US-0075706.
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Pred. No. 0.026;
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                                                                                                                                                                                                                                                                                                                                                                                polypeptides, used to develop and blocking angiogenesis
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Best Local
                                          of high stringency and has a sequence comprising 10-40 bp. The internucleoside linkages of the oligonucleotide comprise at least one phosphorothioate linkages. Hybridisation of the oligonucleotide to the ribonucleic acid inhibits expression of the heparanase, where inhibition of heparanase means at least a 50% reduction in the quality of heparanase in a cell; (2) a composition comprising the above oligonucleotide in an amount effective to inhibit the expression of a heparanase in the cell and a carrier; and (3) a method of treating a tumour in a subject comprises administering to the subject an amount of the above oligonucleotide effective to inhibit expression of a heparanase in the cell and a carrier; and (3) a method of treating to the subject an amount of the above oligonucleotide effective to inhibit expression of a heparanase in the subject. Heparanase antisense oligonucleotides have cytostatic activity, can be used in gene therapy, and can be used for preparing a composition for treating tumours. The present sequence encodes human a composition for treating tumours.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1593 BP; 426 A; 370
                                                                                                                                                                                                                                                                 The present invention describes an oligonucleotide having a sequence complementary to a sequence of ribonucleic acid encoding a heparanase. The oligonucleotide hybridises with the ribonucleic acid under conditions
                                                                                                                                                                                                                                                                                                                                Disclosure;
                                                                                                                                                                                                                                                                                                                                                             composition
                                                                                                                                                                                                                                                                                                                                                                              New oligonucleotide having a sequence complementary to a sequence of ribonucleic acid encoding a heparanase, useful for preparing a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Stein C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JUL-2001; 2001US-0899440.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUL-2002; 2002WO-US20636
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; heparanase; phosphorothioate; antisense oligonucleotide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human heparanase encoding cDNA SEQ ID NO:17
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                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-201558/19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-JAN-2003
                                neparanase,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                                                               Fig 3; 48pp; English.
                                which is given
                                                                                                                                                                                                                                                                                                                                                             for treating tumor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /*tag= a
/product= "heparanase"
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                                in the exemplification
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Pred. No. 0.0
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; 369 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      428 T; 0
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RESULT 10
AAX37259/c
ID AAX37259/c
AC AAX37
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Best Local
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                                                                                                                                                                                                                                                                                enzymes having endoglucuronidase activity. Recombinant heparanases are capable of removing the HS side chain from heparan sulfate proteoglycan (HSPG). Sulfated oligosaccharides, sulphonates or HSPG can be used to inhibit heparanase, this is useful for treatment of a physiological or medical condition associated with elevated heparanase activity, such as metastasis, angiogenesis, wound healing, angioplasty-induced restenosis, arteriosclerosis, atherosclerosis and inflammation. The human, murine and rat heparanases can be used to enhance wound healing, especially associated with tissue development and repair. The conditions mentioned above can be diagnosed using specific antibodies, and also using primers and probes specific for the heparanase polynucleotides. Other uses of the heparanases include sequencing sulfated molecules such as HSPG. The present sequence represents a DNA encoding human heparanase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Heparanase; endoglucuronidase; heparan sulfate proteoglycan; enzyme; metastasis; angiogenesis; wound healing; angioplasty-induced restenosis; arteriosclerosis; atherosclerosis; inflammation; tissue development;
                                                                                                                                                                                                                                  Sequence 1713 BP; 460 A; 404 C; 406 G; 443 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-DEC-1997;
28-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to nucleic acid sequences that encode heparanase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 3; Page 69-73; 112pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 heparanases, useful to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-312956/26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Freeman
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AAX37259 standard; DNA; 1713
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Polynucleotides encoding mammalian endoglucuronidases, especially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (AUSU ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-JUL-1999
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                 939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900 GTAGTGATGCCATGTAACTGAATC 877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HSPG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GTAGTGATGCCATGTAACTGAATC 24
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                                                                                                                              24;
                                                                                                                                                       Similarity
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GTAGTGATGCCATGTAACTGAATC 916
                                                GTAGTGATGCCATGTAACTGAATC 24
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ilarity 100.0%;
Conservative 0
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llarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUSTRALIAN NAT.
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97AU-0000062.
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                                                                                                                        ; Score 24; DB 20; Pred. No. 0.026; 0; Mismatches
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Pred. No. 0.
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                                                                                                                                                                            Length 1713;
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                                                                                                                              Indels
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                                                                                                                             Matches
                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                            activity. The recombinant protein is used as a modulator of heparin-binding growth factors, cellular responses to heparin-binding growth factors and cytokines, cell interaction with plasma lipoproteins, cellular susceptibility to viral, protozoal and bacterial infections or disintegration of neurodegenerative plaques. Heparanase may be useful for conditions such as wound healing, angiogenesis, restenosis, athersclerosis, inflammation, neurodegenerative diseases, and viral infections. Mammalian heparanase can be used to neutralize plasma heparin, and anti-heparanase antibodies may be applied for immunodetection and diagnosis of micrometastases, autoimmuna he defining.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Heparanase; hpa; modulator; heparin-binding growth factor; cellular response; cytokine; cell interaction; plasma lipoprotein; cellular susceptibility; infection; disintegration; neurodegenerative plaque; wound healing; angiogeneesis; restenosis; athereclerosis; inflammation; neurodegenerative disease; neutralise plasma heparin; micrometastasis; autoimmune lesion; renal failure;
                                                                                                                                                                                                                                                        Sequence 1721 BP; 451 A; 413 C; 410 G; 447 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The specification describes a polypeptide having heparanase (hpa) activity. The recombinant protein is used as a modulator of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human polynucleotide useful for treating angiogenesis, restenosis, and inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Feinstein E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUL-1998;
02-SEP-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-JUL-1999
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(HADA-) HADASIT MEDICAL RES SERVICES
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                                                                                                                                                                                                                                                                                                                       present sequence encodes human heparanase.
                                                                                                                                                                                                                                                                                                                                                     renal failure in biopsy specimens, plasma samples,
   956
                                                                                                                             24;
                                                                                                                                                               Similarity
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   GTAGTGATGCCATGTAACTGAATC 933
                                                           GTAGTGATGCCATGTAACTGAATC 24
                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0109386.
97US-0922170.
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                                                                                                                                                        100.0%; Score 24;
100.0%; Pred. No.
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                                                                                                                             Mismatches
                                                                                                                                                               0.026;
                                                                                                                                                                                      DB 20;
                                                                                                                             0; Indels
                                                                                                                                                                                                                                                           other;
                                                                                                                                                                                      Length 1721;
                                                                                                                                                                                                                                                                                                                                                           and body fluids.
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RESULT 12
AAA75051/c
ID AAA75051 standard; cDNA; 1721 BP

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AAA75051;

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                                                                                                                                                            The present sequence encodes a human protein with heparanase catalytic activity. The heparanase (hpa) polynucleotide is useful in gene therapy, particularly in treating tumour, inflammation or autoimmunity. Particularly, the polynucleotide is useful in modulating the bioavailability of heparin-binding growth factors, cellular responses to heparin-binding growth factors (e.g. bfg) and cytokines (e.g. interleukin (II)-8), cell interaction with plasma lipoproteins, cellular susceptibility to certain viral and some bacterial and protozoa infections, or disintegration of neurodegenerative plaques. The polynucleotide is also useful in wound healing (e.g. thermal, chemical or radiation burne), and in the treatment of angiogenesis, restenosis, atherosclerosis, inflammation, neurodegenerative diseases (Gerstmann-straussler Syndrome or Creutzfeldt-Jakob disease), and some viral,
                                                                                                                                                                                                                                                                                                                                                                                                          New polynucleotides encoding a polypeptide having heparanase activity, useful in wound healing and in gene therapy, particularly in treating tumour, inflammation, autoimmunity, neurodegenerative diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; heparanase; gene therapy; tumour; inflammation; autoimmunity; heparin-binding growth factor; cytokine; neurodegenerative plaque; wound healing; infection; burn; angiogenesis; restenosis; atherosclerosis; inflammation; neurodegenerative disease; derstmann-Straussler Syndrome; Creutzfeldt-Jakob disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                 Claim 9; Fig 1; 152pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-SEP-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  stem_loop
                                                                                                                     Sequence 1721 BP; 451 A; 413 C; 410 G; 447 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-FEB-2000; 2000WO-US03542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200052178-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (FRIE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                        Local
                                                                                          Match
956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000-579289/54.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INSIGHT STRATEGY & MARKETING HADASIT MEDICAL RES SERVICES
                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FRIEDMAN M M.
GTAGTGATGCCATGTAACTGAATC 933
                            GTAGTGATGCCATGTAACTGAATC 24
                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vlodavsky I,
                                                            Conservative
                                                                                                                                                   protozoa infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers 63..1693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product= "heparanase"
698..724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "these nucleotides are likely to be involved
in forming stem and loop structures"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag=
                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  heparanase polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Feinstein
                                                          0
                                                                       Score 24; I
Pred. No. 0.
                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  & DEV.
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                                                                        .026;
                                                                                       21;
                                                            0
                                                                                     Length 1721;
                                                         0,
                                                         Gaps
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Query Match Matches

Local Similarity

100.0%; Score 24; DB 21; Length 1721; 100.0%; Pred. No. 0.026;

0

Mismatches

Indels

0

0

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RESULT 13
AAZ39155/c
ID AAZ391
XX Human;
XX Human;
XX Metast
XX Mey
FT CDS
FT C
                                                                                          may also be implicated in tumour angiogenesis and metastases. (II) is potentially useful in wound healing and for treating angiogenesis, restenosis, atherosclerosis, inflammation, neurodegeneration, viral infection and cystic fibrosis. It can also be used to neutralise heparin (an alternative to protamine) and to screen for specific inhibitors (potentially useful for treating cancer and metastases). Antibodies raised against (II) are used for immunodetection and diagnosis of micrometastases, autoimmune lesions and kidney failure. (A) provide in large quantities, in a form that is homogeneously processed and activated neutralised by a dedicated protease. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention describes genetically modified cells (A) containing a polynucleotide (I) that encodes a polypeptide with heparanase activity, and express recombinant heparanase (II). Heparanase cleaves heparan sulphate (HS) at specific intrachain sites, resulting in release of heparin-binding growth factors, enzymes and proteins that are sequestered by HS in basement membranes, extracellular matrix or cell surfaces. It
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; heparanase; hpa; genetic modification; expression; anticancer; angiogenesis; anti-angiogenic; antipicoliferative; antiviral; antitumour anti-atherosclerotic; anti-inflammatory; antineurodegeneration; heparan sulphate; heparin-binding growth factor; tumour angiogenesis; metastasis; wound healing; restenosis; atherosclerosis; inflammation; neurodegeneration; viral infection; cystic fibrosis; cancer; diagnosis; micrometastasis; autoimmune lesion; kidney failure; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ39195 standard; cDNA; 1721 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Engineered cells that express recombinant heparanase, useful therapeutically, e.g. for treating angiogenesis and to screes specific inhibitors, potential anticancer agents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human heparanase encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-MAR-2000
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02-MAR-1999;
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      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 2; Page 106-107; 118pp; English.
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      1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
      ВP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ayal-Hershkovitz M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0071618.
99US-0260038.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /product= "heparanase"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag=
      451
   A; 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDNA.
   Ç
      410
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      <u>ი</u>
      447 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pecker I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             screen
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RESULT 14
AAZ33290/c
ID AAZ332
XX AAZ332
XX AAZ332
XX AAZ332
XX Human
XX Human;
XW Human;
XW metast;
XW antidi;
XW antidi;
XW mesoth;
XW inflam
XX Homo s
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FT CDS
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                                                                           Matches
                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                               The present invention describes heparanase-specific molecular probes, useful for methods of detecting heparanase in situ. The probes and anti-heparanase antibodies are used to detect or quantify the expression of heparanase, for diagnosis and monitoring of diseases (especially metastasis), for treatment of heparanase-associated diseases (e.g. tumours, (ademo)carcinoma, squamous cell carcinoma, teratocarcinoma, mesothelioma, melanoma, lymphoma or leukemia, a solid cancer (or its metastases) derived from liver, prostate, bladder, breast, ovary, cervix, colon, skin, intestine, stomach, uterus and pancreas, kidney disease, diabetes and inflammatory or autoimmune disease), for targeted drug delivery (e.g. of anticancer agents) and as research reagents. The present sequence encodes human heparanase, which is used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      metastasis; adenocarcinoma; squamous cell carcinoma; teratocarcinoma; mesocthelioma; melanoma; lymphoma; leukepia; cancer; sepsis; diabetes; inflammation; haemorrhagic nephritis; nephrotic syndrome; autoimmune disease; anticancer; kidney disease; ds.
                                                                                                                                                                                      Sequence 1721 BP; 451 A; 413 C; 410 G; 447 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example; Page 82-84; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Heparanase-specific molecular probes useful for diagnosis treatment, e.g. of tumors, and for targeted drug delivery
                                                                                                                                                                                                                                          exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pecker I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ33290;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-FEB-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (FRIE/)
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DB; AAY52990.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INSIGHT STRATEGY & MARKETING HADASIT MEDICAL RES SERVICES
                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FRIEDMAN M M.
GTAGTGATGCCATGTAACTGAATC 24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vlodavsky I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /product= "heparanase"
                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Friedman
                                                                           0
                                                                                               Score 24; DB 21;
Pred. No. 0.026;
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                                                                           Mismatches
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                                                                                                                               Length 1721;
                                                                           Indels
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Search completed: February Job time: 12.7756 secs

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2004, 09:18:14

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RESULT 15
AAA911112/c
ID AAA91
ID AAA91
ID AAA91
IX AC AAA91
XX AC AAA91
XX AC AAA91
XX Hepa
XX Hepa
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                                                                                                                  Matches
                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                  This sequence represents a human heparanase coding sequence clone, isolated from an EST clone. The invention relates to heparanase DNA and protein sequences. The heparanase DNA and protein sequences are useful in wound healing, angiogenesis, restenosis, atherosclerosis, inflammation, pulmonary diseases, neurodegenerative diseases (such as Scrape, Alzheimer's diseases, and Creutzfeldt-Jakob disease) or viral infections. The heparanase coding sequence is particularly useful in ginfections.
                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New polynucleotides and polypeptides that are distantly homologous heparanase, useful in wound healing, as well as in gene therapy protocols for angiogenesis, restenosis, atherosclerosis, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nelydidiane; http://www.inclining.com/
atherosclerosis; inflammation; pulmonary disease; Alzi
neurodegenerative disease; Creutzfeldt-Jakob disease;
rome theranv: mouse: expressed sequence tag; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 1; Page 67; 67pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human heparanase, coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inflammation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     heparanase, useful in wound protocols for angiogenesis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-137930/14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pecker I, Michal I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-JAN-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAA91112 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (INSI-) INSIGHT STRATEGY & MARKETING
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956
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                                                                                                                                              Similarity
                                                                                                                                                                                                                                     1721
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                                     GTAGTGATGCCATGTAACTGAATC
                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                     BP; 451 A; 413 C; 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0140801.
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                                                                                                                                        100.0%; Score 24; 100.0%; Pred. No.
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                                                                                                                                                                                                                                     G; 447.T; 0
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                                                                                                                                                                                                                                     other;
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          000
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                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                           DB seq
                                      Score
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length: 2000000000
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24
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-6256.802 Million cell updates/sec
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Maximum Match 100%
Listing first 45 summaries
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                                       ij
 N41349
N45367
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 N41349 yw70a03.rl
N45367 yw97a02.rl
BQ438834 AGENCOURT
BX398409 BX398409
                                      Description
                                                    TITLE
JOURNAL
COMMENT
                                                                                                 REFERENCE
AUTHORS
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SOURCE
ORGANISM
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VERSION
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N41349/c
LOCUS
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                                                                                                                                                                                                                                                Unpublished
Contact: Wilson RK
Contact: Wilson RK
Washington University School of I
4444 Forest Park Parkway, Box 85
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
High quality sequence stops: 279
Source: IMAGE Consortium, LLNL
                                                                 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 370)

Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston,R., Williamson,A., Wohldman,P. and Wilson,R.
                                                                                                                                                                 N41349 370 bp mRNA linear EST 24-JAN-19:
yw70a03.r1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA
clone IMAGE:257548 5', mRNA sequence.
                                                                                                                                                      N41349.1 GI:1165380
                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                              AL552151
AL545232
BZ114057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BB181417
AK039061
AQ775821
AQ363749
BG238460
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BI250835
BE567253
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CB970530
BZ771989
AK087283
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BE865600
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BB218197
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AL937708
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CC412604
                                              School of Medicine
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                                                                                                                                                                                                                         ALIGNMENTS
                                      Box 8501,
                                      St. Louis,
                                                                                          Hawkins,M., Holman
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BU005587 GGGB1270.9
BE565192 601342769
CC412604 PUEJN06TD
BG777768 602665307
CB970530 CAB10003
BZ771989 mct83e06.
AK087783 Mus muscu
AK040471 Mus muscu
AK937708 Arabidops
AZ939449 AM0198K20
BF084909 MM0-FT017
CB062055 4012122 B
BZ280332 CH230-344
BQ465842 HU04N137
BB218197 BB218197
BF207911 601862428
BF029562 601765976
BI750336 60295478
BF211534 601815294
BF211534 601815294
BF211534 601815294
BF21534 601815826
BG615642 602642992
BB865600 601677947
BE568413 60134193
BG53594 60264333
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AQ260481 CITBI E1-
BE565766 601338571
BB181417 BB181417
AK039061 Mus muscu
AQ775821 HS_2006 A
AQ363749 nbxb0059J
BG238460 sab51a01.
B52785 CIT-HSP-200
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BU352277
BU005587
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AL545232 AL545232
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REFERENCE
AUTHORS
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N45367/c
LOCUS
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KEYWORDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           229
                                                                                                                  Seq primer: T7
High quality sequence stop: 369.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24;
                                                                                                                                                                    Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
TMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 587),
Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M.,
Hillier,L., Kucaba,T., Le,M., Lennon,G., Marra,M., I.
Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E.,
R., Williamson,A., Wohldmann,P. and Wilson,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     yw97a02.rl Soares_placenta_8to9weeks_2NbHP8to9Wclone IMAGE:260138 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seq primer: T/
High quality sequence stop: 279.
Location/Qualifiers
                                                                                                                                                                                                                                                        Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
                                                                                                                                                                                                                            Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                             Contact: Wilson RK
                                                                                                                                                                                                                                                                                                                          R., Williamson, A., wonicman
                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                               Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N45367.1 GI:1186533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Seq primer: T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
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/organism="Homo sapiens"
/mol type="mRNA"
/db_ref="GDB:3889844"
/db_xref="taxon:9606"
/clone="IWAGE:260138"
/dev_stage="two placentae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Pharmacia). Library constructed by Bento Soares and M.Fatima Bonaldo."
103 t 7 others
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|db_xref="GDB:3887158"
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mol_type="mRNA"
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Pred. No. 1.8;
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     placentae:
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     from
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   weeks and another
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens cDNA
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Best Local S
Matches 24
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JOURNAL
                                                            Matches
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1 GTAGTGATGCCATGTAACTGAATC 24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 907)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAMI3218 row: b column: 01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
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AGENCOURT 7761619 NIH_MGC_70 Homo
5', mRNA Bequence.
B04388<sup>34</sup>
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                                                                              Similarity
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                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                              quality sequence stop: 616.
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                                                                                                                                                      /tissue_type="epithelioid carcinoma"
/lab host="NHH0B (phage resistant)"
/clone_lib="NIH MGC_70"
/note="Organ: pancreas; Vector: pCMV-SPORT6; Site_1: Not1;
/site_2: Sal; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.1 kb. Library constructed by Life
Technologies."
176 c 226 g 242 t 3 others
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112 c 153 g
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/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6017952"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      double-stranded cDNA was size selected, ligated to Eco RI adapters (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of a modified pT7T3 vector (Pharmacia). Library constructed by Bento Soares and
                                                                                                                                                                                                                                                                                                                                                                                                            ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  from 9 weeks post conception"
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                                                                            100.0%; Score 24; DB 13; Length 907; 100.0%; Pred. No. 2.8;
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Pred. No. 2.2;
0; Mismatches
                                                            Mismatches
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sapiens cDNA clone IMAGE:6017952
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On Feb 15, 2
Contact: Ger
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: segref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r For
more information about this cluster, see
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1 (bases 1 to 1083)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
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BX398409 Homo sapiens PLACENTA COT 25-NORM
clone CSODIO58YI24 3-PRIME, mRNA sequence.
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Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                                                                AL552151 1156 bp mRNA linear ES AL552151 Homo sapiens PLACENTA COT 25-NORWALIZED Homo CIONE CSODIO59YN15 3-PRIME, mRNA sequence.
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BP 191 91006 EVRY cedex - France
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llarity 100.0%;
Conservative 0;
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/clone_Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/clone_Tist strand cDNA was primed with a NotI-oligo(dT)
/note="Ist strand cDNA was primed cDNA was
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and ECOR V
sites of the pCMVSPORT 6 vector. Library was normalized."

264 c 206 g 258 t 82 others
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/mol_type="mRNA"
/db_xref="taxon:9606"
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                                        version replaced gi:12890775
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COT 25-NORMALIZED Homo sapiens cDNA
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AL545232 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens cDNA
clone CSODIO28YF04 3-PRIME, mRNA sequence.
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BP 191 91006 EVRY cedex - France
Email: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r For
more information about this cluster, see
                                                                                                                                                                                                                                                                                                                                                                                                      cgi-bin/cluster.cgi?seq=CSODIO28DCO2NP1&cluster=2469.r. Contact Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ invitroGen Corporation 1600 http://fulllength.invitrogen.com/ invitrogen.com/ i
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Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r
more information about this cluster, see
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Location/Qualifiers
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/clone_Tib="Homo sapiens PIACENTA COT 25-NORWALIZED"
/note="1st strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR v
sites of the PCMVSPORT 6 vector. Library was normalized."
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/clone="CSODIO59YN15"
type="PIACENTA COT 25-NORMALIZED"
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/note="1st strand cDNA was primed with a NotI-oligo(dT)
                                                                                                                                /clone="CS0DI028YF04"
                                                                                                                                                                  /mol_type="mRNA"
/db_xref="taxon:9606"
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Best Local
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817
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                                   μ
                                                                                                                                                                                                                                                                                                                                                                                                             Email: szhao@tigr.org
Clones are derived from the rat BAC library CHORI-230
(http://www.chori.org/bacpac/rat230.htm). For BAC library
(http://www.chori.org/bacpac/rat230.htm). For BAC library
availability, please contact Pieter de Jong (pdejong@mail.cho.org).
Clones may be purchased from BACPAC Resources
(http://www.chori.org/bacpac/or ering information.htm). BAC end
page: http://www.tigr.org/tdb/bac_ends/rat/bac_end_intro.html
plate: 385 row: I column: 18
Seq primer: T7
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         824 bp
CH230-385118.TVB CHORI-230 Segment
clone CH230-385118, genomic survev
BZ114057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Shaying Zhao Department of Eukaryotic Genomics The Institute for Genomic Research 9712 Medical Center Dr., Rockville, Tel: 301 838 0200 Fax: 301 838 0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zhao, S., Shetty, J., Shatsman, S., Taegaye, G., Geer, K., Shv, A., Gebregeorgis, E., Overton, L., Russell, D., Chen, D., Ri
Jong, P. and Fraser, C.M.
Rat BAC End Sequences from Library CHORI-230 MboI segment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BZ114057.1 GI:23755004 GSS.
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Mammalia; Eutheria; Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished
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                                                                                       Similarity
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 GTAGTGATACCATGTAATTGAA
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                                                                                                                                                        /cell_type="Brain"
/clone_lib="CHORI.230 Segment 2"
/clone_lib="CHORI.230 Segment 2"
/note="Vector: pTARBAC1.3; Site_1: MboI; Site
CHORI.230 Rat (BN/SSNH#d/MCW) BAC library prod
Pieter de Jong"
133 c 163 g 235 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized." a 249 c 249 g 332 t 70 others
                                                                                                                                                                                                                                                                                                      /mol_type="genomic DNA"
/strain="BN/S8NHsd/MCW"
/db_xref="taxon:10116"
                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                       /sex="Female"
                                                                                                                                                                                                                                                                                                                                                          organism="Rattus norvegicus"
                                                                                                                                                                                                                                                                                    clone="CH230-385I18"
                                                                                   78.3%;
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Pred. No. 6e+02;
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Pred. No. 3.1;
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2 Rattus norvegicus genomic
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REFERENCE
AUTHORS
TITLE
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ORGANISM
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           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 642)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                EST
                                                                                                                                             BE565766
BE565766.1
                                                                                                                                                                                          601338571F1 NIH_MGC_53 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
Contact: Mark Adams
Contact: Mark Adams
Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AQ260481 493
CITBI-E1-2504G20.TR CITBI-E1
 Unpublished
                                                                                              Homo sapiens
                                                                                                            Homo sapiens (human)
                                                                                                                                                                           mRNA sequence.
                                                                                                                                                                                                            BE565766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: mdadams@tigr.org
Email: mdadams@tigr.org
Clones are available from Research Genetics (info@resgen.com).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tel: 301 838 0200
Fax: 301 838 0208
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1 (bases 1 to 493)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Adams, M.D., Rounsley, S.D., Berry, K., Granger, D., Suh,
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Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html
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                                                                                                                                                                                                                                                                                                                                                                                                                                        180
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                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                 /cell_type="sperm"
/clone lib="CITB1-E1"
/note="Vector: pBeloBAC11; S
CalTech Human BAC Library D"
a 80 c 95 g 138 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="genomic DN
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
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Pred. No. 7.1e+02;
0; Mismatches 1
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dd
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genomic
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                                                                                                                                                                                               IMAGE:3680848
                                                                                                                                                                                                                                                                                                                                                                                       493;
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1 rakawa, T., Carninci, P., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hramoto, K., Hori, F., Ishii, Y., Ito, M., Kawai, J., Konno, H., Kouda, M., Koya, S., Matsuyama, T., Miyazaki, A., Nomura, K., Ohno, M., Okazaki, Y., Okido, T., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., D., Shibata, K., Sakai, Shiraki, F., Takeda, Y., Tanaka, T., Toya, T., Muramatsu, M. and Hayashizaki, Y.

Muramatsu, M. and Hayashizaki, Y.

MIKEN Mouse ESTS (Arakawa, T., et al. 2001)
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BB181417 RIKEN full-length enriched, adult male hypothalamus Mus musculus cDNA clone A230091D07 3', mRNA sequence.
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                                                                                                                                                               Contact: Yoshihide Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
                                                                                                                                                                                                                                                            Unpublished
On Jun 29, 2000 this sequence version replaced gi:8840500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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Email: genome-res@gsc.riken.go.jp,
URL:http://genome.gsc.riken.go.jp/
                                                                                                                  1-7-22 Suehiro-cho,
                                                                                                                                          The Institute of Physical and Chemical Research (RIKEN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (house mouse)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGATACCATGTAACTGAAT 578
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/tissue_type="carcinoma, cell line"
/lab host="pHiOB (Tl phage-resistant)"
/clone_lib="NIH MGC_53"
/clone_type="carcinoma, cell line"
/note="Organ: bladder; Vector: pDNR-LIB (Clontech);
/note="Organ: bladder; Vector: pDNR-LIB (Clontech);
/site_l: SfiI (ggccgcctcggcc); Site_2: SfiI (ggccattatggcc);
Site_1: SfiI (ggccgcctcggcc); Site_2: SfiI (ggccattatggcc);
); Double-stranded cDNA was prepared from cell line RNA.
); Double-stranded cDNA was prepared from cell line RNA.
5' and 3' adaptors were used in cloning as follows: 5',
adaptor sequence: 5'-CACGGCCATTATGGCC-3' and 3' adaptor sequence: 5'-ATTCTAGAGGCCGAGCGGCCACTCATG(30)BN-3'
sequence: 5'-ATTCTAGAGGCCGAGCGGCCACTCATG-1(30)BN-3'
ANGERGE
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/clone="IMAGE:3680848"
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95.0%;
                                                                                                                  Tsurumi-ku, Yokohama, Kanagawa
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Pred. No. 8.1e+02;
0; Mismatches 1;
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                               2 TAGTGATGCCATGTAACTGA 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Computational Analysis of Full-Length Mouse cDNAs Compared with Human Genome Sequences Mamm. Genome. 12, 673-677 (2001) Please visit our web site (http://genome.gsc.riken.go.jp/) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  prepare mouse tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         encylopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001) Kondo,S., Shinagawa,A., Saito,T., Kiyosawa,H., Yamanaka,I., Aizawa,K., Fukuda,S., Hara,A., Itoh,M., Kawai,J., Shibata,K. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequencing pipeline with 384 multicapillary sequencer. Genome Res. 10 (11), 1757-1771 (2000)
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                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Computer-based methods for the mouse full-length cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Konno, H., Fukunishi, Y., Shibata, K., Itoh, M., Carninci, P., Sugahara
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  TAGTGATGTCATGTAACTGA 14
                                                                                                                                                                                                                                                   236
                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                          /note="Site 1: Sall; Site_2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken
                                                                                                                                                                                                                                                                                  modified pBluescript KS(+) after bulk excision from Lambda
FLC I. "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          primed with a primer [5' GAGAGAGAGAGAGAGCTCTTTTTTTTTTTTTTTTTTTTVN 3'], cDNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 contributed to prepare
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="hypothalamus"
/dev_stage="adult"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="mRNA"
/db_xref="taxon:10090"
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                                                                                                                                   76.7%;
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Pred. No. 8.3e+02;
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                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mouse tissues. 1st strand cDNA was
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                                                                                                                       Group Phase I & II Team.
Analysis of the mouse transcriptome of 60,770 full-length cDNAs
Nature 420, 563-573 (2002)
6 (bases 1 to 2733)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishin, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
Adachi,J., Aizawa,K., Akimura,T., Arakawa,T., Bono,H., Ca
Fukuda,S., Furuno,M., Hanagaki,T., Hara,A., Hashizume,W.,
Hayashida,K., Hayatsu,N., Hiramoto,K., Hiraoka,T., Hiroza
Hori,F., Imotani,K., Ishii,Y., Itoh,M., Kagawa,I., Kasuka
Katoh,H., Kawai,J., Kojima,Y., Kondo,S., Konno,H., Kouda,
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
99279233
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                                                                                                                                                                                                                                                                                                                                             Nature 409
21085660
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HTC; CAP trapper.
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Konno,H., Adachi,J., Fukuda,S.,
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                                                                                                                                                                                                                                                                 Exploration Research
                                                                                                                                                                                                                functional annotation
  Hirozane, T.,
Kasukawa, T.,
Kouda, M.,
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2076 TAGTGATGTCATGTAACTGA 2057
                                                                              Sequence-tagged connectors: A sequence approach to mapping scanning the human genome Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9739-9744 (1999)
                                                                                                                                                                                  1 (bases 1 to 401)
Mahairas,G.G., Wallace,J.C.,
Keller,A., Shaker,R., Furlon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AQ775821
HS 2006 A2 H02 MR CIT
Bapiens genomic clone
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Genomic Sciences Center and Genome Science Laboratory in RIKEN.
Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC) RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokoh. Kanagawa 230-0045, Japan (E-mail:genome-resegsc.riken.go.jp,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Muramatsu, M. and Hayashizaki, Y. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Murata, M., Nakamura, M., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Ohsato, N. Okazaki, Y., Saito, R., Saitoh, H., Sakai, C., Sakai, K., Sakazume, N., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Tagami, M., Tagawa, A., Takahashi, F., Takaku-Akahira, S., Takada, Y., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A.,
                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            URL:http://genome.gsc.riken.go.jp/
URL:http://fantom.gsc.riken.go.jp/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 prepare mouse tissues.
Please visit our web site for further details.
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Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
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Mahairas GG,
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/mol_type="mRNA"
/strain="C57BL/6J"
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/clone_Tib="RIKEN full-length enriched mouse cDNA library"
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db_xref="taxon:10090"
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Pred. No. 1.6e+03;
  Wallace
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JC,
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=4 Row=O, genomic surve
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Zhao,S.,
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RESULT 13
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Best Local :
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Tel: (206) 616-3618
Fax: (206) 616-3887
Email: jwallace@u.washington.edu
Clones may be purchased from Research Genetics (info@resgen.com).
BAC end Web Server: http://www.htsc.washington.edu
Plate: 2006 row: O column: 4
Seq primer: M13 Reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AQ363749
431 bp DNA linear GSS 16
nbxb0059J12f CUGI Rice BAC Library Oryza sativa (japonica
cultivar-group) genomic clone nbxb0059J12f, genomic survey
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Oryza sativa (japonica cultivar-group)
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
                                                                                                                                                                                                                      Seq primer: TAATACGACTCACTATAGGGCClass: BAC ends
                                                                                                                                                                                                                                                                                Tel: 864 656 7288 Fax: 864 656 4293
                                                                                                                                                                                                                                                                                                          Clemson University
100 Jordan Hall, Clemson, SC 29634, USA
                                                                                                                                                                                                                                                                                                                                                          Contact: Wing RA
Clemson University Genomics Institute
                                                                                                                                                                                                                                                                                                                                                                                                   On Dec 15,
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Location/Qualifiers
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                                                                                                                                                                                                                                                             rwing@clemson.edu
                                                         /organism="Oryza sativa / /organism="Oryza sativa / /mol type="genomic DNA" / strain="Japonica" / cultivar="Nipponbare" / db_xref="taxon:39947"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone_lib="CIT Approved Human Genomic Sperm Library D"
/note="organ: sperm; Vector: pBeloBAC11; BAC Clones in
_B-Coli_DH10B"
/clone="nbxb0059J12f"
/tissue_type="Leaf"
/lab_host="E. coli DH10B"
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/db_xref="taxon:9606"
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Glycine max (soybean)
Glycine max
Glycine max
Elkaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Epikaryota; Wagnoliophyta; eudicotyledons; core eudicots; rosids
Spermatophyta; Magnoliophyta; edicotyledons; core eudicots; rosids
; eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae;
                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Shoemaker R/Public Soybean EST Project
Public Soybean EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shoemaker, R., Keim, P., Vodkin, L., Erpelding, J., Coryell, V., Khanna, A., Bolla, B., Marra, M., Hillier, L., Kucaba, T., Martin, J., Beck, C., Wylie, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R., and Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BG238460 473 bp mRNA linear EST 28-NOV-200 sab51a01.y1 Gm-c1043 Glycine max cDNA clone GENOME SYSTEMS CLONE ID: Gm-c1043-2690 5' similar to TR:064486 064486 F20D22.2 PROTEIN.
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                                                                                                                                                                                                                    Email: est@watson.wustl.edu
This clone is available through: ResGen, Invitrogen Corp. 2130
South Memorial Parkway Hunteville, AL 35801 For further information
call: (800)-533-4363 or contact via email: ccu@resgen.com.
                                                                                                                                                                                                                                                                                                                                            Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Public Soybean EST Project
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/note="Wector: pBeloBacil; Site 1: HindIII; Site 2: HindIII; Rice is one of two most popular grains in the world. Half of the world population especially those inhabiting highly populated areas of the hundi tropics and subtropics, rely on rice as their primary source of carbohydrate. Monocotyledonous rice is a diploid plant (2n=24) with a haploid genome equivalent of 431 Mbp (Arumuganathan and Earle, 1991). The relatively small genome of rice, three times larger than that of Arabidopsis, makes it suitable for genomic studies. In order to facilitate positional cloning, physical mapping and genome sequencing of rice, we have constructed a BAC library from Oryza sativa, Nipponbare variety. The library contains 36,864 clones with an average insert size of 128.5 Kb providing 10.9 haploid genome equivalents. The deep coverage allows the isolation a particular sequence with a probability of 99.9 %. Two high density filters, with whole library for colony screening."

34 a 92 c 96 g 108 t lothers
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/organism="Glycine max"
/mol type="mRNA"
/db_xref="taxon:3847"
/clone="GENOME SYSTEMS CLONE ID: Gm-c1043-2690"
/tissue_type="Hypocotyl and Plumule, germinating seeds"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone_lib="CUGI Rice BAC Library"
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Pred. No. 8.2e+02;
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Best Local Similarity 87.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html
Seq primer: M13 Reverse
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Department of Eukaryotic Genomics The Institute for Genomic Research 9712 Medical Center Dr., Rockville, Tel: 301 838 0200 Fax: 301 838 0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Adams,M.D., Rounsley,S.D., Field,C.E., Bass,S., Linher,K., Golden,K., Berry,K., Granger,D., Suh,E., Wible,C., Shizuya,H., Simon,M. and Venter,J.C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: mdadams@tigr.org
Clones are available from Research Genetics (info@resgen.com). BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Mark Adams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Other_GSSs: CIT-HSP-200604.TF
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//clone="Vector: pT7T3Pac.(Pharmacia); Site 1: EcoRI;
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/note="Vector: pT7T3Pac.(Pharmacia); Site 1: EcoRI;
/note="Vector: pT7T3Pac.(Pharmacia); Site 1: EcoRI seeds
/solated from hypocotyl and plumule tissues of seeds
/solated contains of a poly(dT) sequence with a NotI restriction
/site. EcoRI adapters were ligated to the blunt-ended cDNA
/fragments were directionally cloned into the
/solated cDNA fragments were transformed into DH10B host
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/clone_lib="CIT-HSP"
/rote="Vector: pBeloBAC11; Site_1: HindIII; Site_2:
                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"

mol_type="genomic DNA"

db_xref="GDB;7039830"

db_xref="taxon:9606"
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Matches 20; Conserv
81 GAAGTGATTCCATGTATCTGAAT 103
             1 GTAGTGATGCCATGTAACTGAAT 23
                                            Conservative
                                                       75.8%;
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                                                       Score 18.2; DB 20
Pred. No. 9.2e+02
                                                                  Length
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Search completed: February 16, 2004, 13:41:05 Job time: 97.2277 secs

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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N_Geneseq_19Jun03:*

1: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*
2: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*
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3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*
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8: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*
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AAA88917 AAA88916	ABK49828 AAA88918	ABL57029 ABV77225	AAZ39197 AAZ33292	SUMMARIES
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	AAI91021	AAS32313	ABZ09096	ABZ78549	AAH41225	AAI61372	AAI61371	ABT12817	AAF23624	AAV70137	AAV69545	ABX28810	ABK31889	ABL55698	AAA30570	ABK95199	ABK95198	ABN85752	AAC55495	AAF30277	ABK49826	ABK49825	ABK49827	AAC55498	AAC55475	AAC55493	AAC55471	AAA88922	AAA88919	AAA88923	AAA88920	AAA88924	AAA88921	AAA88915	AAA88914	AAH74721	AA164290
٠	Human polynucleoti	Human cDNA encodin	Human oligonucleot	Tumour suppression	Pyrococcus abyssi	Soybean 240017 reg	Soybean 240017 reg	Human RECQL gene-r	TutB/C coding sequ	TutC and TutB gene	P. neopolydactyla	Human GDP-mannose	Candida tropicalis		Genomic DNA encodi	plate cont	PCR template conta	 Mouse chromosome 1 	Destination vector	Mouse CD40 recepto	Plasmid pFastBac1-		-	Destination vector	Destination vector	Destination vector	Destination vector	Nucleotide sequenc	Nucleotide sequenc		Nucleotide sequenc		Nucleotide sequenc		Nucleotide sequenc	Nucleotide sequenc	Protease D-G catay

ALIGNMENTS

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(INSI-) INSIGHT STRATEGY & MARKETING LTD.		01-MAY-1998; 98US-0071618.	29-APR-1999; 99WO-US09256.		11-NOV-1999.		WO9957244-A1.		Homo sapiens.	Synthetic.		micrometastasis; autoimmune lesion; kidney failure; PCR primer; ss.	neurodegeneration; viral infection; cystic fibrosis; cancer; diagnosis;	metastasis; wound healing; restenosis; atherosclerosis; inflammation;	heparan sulphate; heparin-binding growth factor; tumour anglogenesis;	<pre>anti-atherosclerotic; anti-inflammatory; antineurodegeneration;</pre>	<pre>angiogenesis; anti-angiogenic; antiproliferative; antiviral; antitumour;</pre>	Human; heparanase; hpa; genetic modification; expression; anticancer;		Human heparanase PCR antisense primer SEQ ID NO:5.		02-MAR-2000 (first entry)		AAZ39197;		ID AAZ39197 standard; DNA; 24 BP.	RESULT 1

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RESULT 2
AAZ33292
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sulphate (HS) at specific intrachain sites, resulting in release of heparin-binding growth factors, enzymes and proteins that are sequestered by HS in basement membranes, extracellular matrix or cell surfaces. It may also be implicated in tumour angiogenesis and metastases. (II) is potentially useful in wound healing and for treating angiogenesis, restenosis, atherosclerosis, inflammation, neurodegeneration, viral infection and cystic fibrosis. It can also be used to neutralise heparin (an alternative to protamine) and to screen for specific inhibitors (potentially useful for treating cancer and metastases). Antibodies raised against (II) are used for immunodetection and diagnosis of inflared quantities, in a form that is homogeneously processed and activated/neutralised by a dedicated protease. The present sequence represents a PCR primer for human heparanase, which is used in an
                                                                                                                                                                                                                                               metastasis; adenocarcinoma; squamous cell carcinoma; teratocarcinoma; mesothelioma; melanoma; lymphoma; leukemia; cancer; sepsis; diabetes; inflammation; haemorrhagic nephritis; nephrotic syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Engineered cells that express recombinant heparanase, useful therapeutically, e.g. for treating angiogenesis and to screen for specific inhibitors, potential anticancer agents
                                                                                                                                                                                                                                                                                                  Human; heparanase; hpa; diagnosis; therapy; tumour; cytostatic; antidiabetic; immunomodulatory; anti-inflammatory; nephrotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  represents a PCR primer for human hexample from the present invention.
                                                                                  29-APR-1999;
                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                   autoimmune
                                                                                                                                                                                                                                                                                                                                                  Human heparanase PCR antisense primer SEQ ID NO:5.
                                                                                                                                                                                                                                                                                                                                                                                      21-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ33292 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 1; Page 36; 118pp; English.
                                                  01-MAY-1998;
                                                                                                                   11-NOV-1999.
                                                                                                                                                    WO9957153-A1
                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ33292;
(1NSI-) INSIGHT STRATEGY & MARKETING (HADA-) HADASIT MEDICAL RES SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (FRIE/) FRIEDMAN M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      he present invention describes genetically modified cells (A) containing polynucleotide (I) that encodes a polypeptide with heparanase activity, and express recombinant heparanase (II). Heparanase cleaves heparan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                   sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000-062144/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATGATCCTCTAGTACTTCTCGAC 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATGATCCTCTAGTACTTCTCGAC 24
                                                                                                                                                                                                                                   disease; anticancer; kidney disease; PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP; 5 A; 7 C; 3 G; 9 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ayal-Hershkovitz M,
                                                  98US-0071739.
                                                                                  99WO-US09255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 24; I
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yacoby-Zeevi O,
& DEV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .13;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     containing
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of heparanase, for diagnosis and monitoring of diseases (especially metastasis), for treatment of heparanase-associated diseases (e.g. tumours, (adeno) carcinoma, squamous cell carcinoma, teratocarcinoma, mesothelioma, melanoma, lymphoma or leukemia, a solid cancer (or its metastases) derived from liver, prostate, bladder, breast, ovary, cervix, colon, skin, intestine, stomach, uterus and pancreas, kidney disease, diabetes and inflammation, haemorrhagic nephritis, nephrotic syndrome, sepsis and inflammatory or autoimune disease), for targete drug delivery (e.g. of anticancer agents) and as research reagents. The present sequence represents a PCR primer for human heparanase, whis used in an example from the present invention for the construction
                                                                                                                                                                                                                                                                                                     Baculovirus; vector; gene therapy; lac2; enzyme; vasotropic; antiatherosclerotic; CMV; pFASTBac1; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                  ABL57029;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes heparanase-specific molecular probes, useful for methods of detecting heparanase in situ. The probes and anti-heparanase anti-bodies are used to detect or quantify the expression of heparanase, for diagnosis and monitoring of diseases (especially
                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                             Baculovirus.
                                                                                                                                                                                                                                                                                                                                                             Nuclear-targeted lac2 baculovirus transfection cassette.
                                                                                                                                                                                                                                                                                                                                                                                                                                               ABL57029 standard; DNA; 230 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a heparanase expression vector.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Heparanase-specific molecular probes useful treatment, e.g. of tumors, and for targeted
                           Yla-Herttuala S,
                                                                                 26-MAY-2000; 2000GB-0012997.
                                                                                                           29-MAY-2001; 2001WO-GB02383.
                                                                                                                                      29-NOV-2001.
                                                                                                                                                                   WO200190390-A1
                                                                                                                                                                                                                                                                                                                                                                                        23-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-052944/04.
                                                      (ARKT-) ARK THERAPEUTICS LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (FRIE/) FRIEDMAN M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATGATCCTCTAGTACTTCTCGAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 27; 90pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       e.g. of tumors, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
ilarity 100.0%;
Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP; 5 A;
                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                     /*tag=
                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                           /note= "transcription start
                           Airenne KJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
                                                                                                                                                                                             promoter'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Friedman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 24; DB 2
Pred. No. 0.13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Perets
                                                                                                                                                                                                                                                                                                                     beta-galactosidase;
thrombolytic; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21;
                                                                                                                                                                                                            for the polyhedrin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for diagnosis drug delivery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      construction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             targeted
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WPI; 2002-401582/43

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vector. The vector was used in examples from the invention to demonstrate baculovirus-mediated gene transfer to the rabbit arterial wall, rat brain and rabbit skeletal muscle. The invention relates to the delivery of a gene product by providing the gene in a baculovirus vector and applying the vector to a body compartment which is free (or usually free) of blood. In a device for the periadventitial delivery of a gene product, the gene is provided in a baculovirus vector from which the gene is expressed. The baculovirus vector is useful for gene therapy, especially of vascular diseases such as post-angioplasty restenosis, post-bypass atherosclerosis, stenosis of vascular prosthesis anastomoses and thrombus formation. It is also useful for administration into brain (e.g. for cancer treatment) or ex vivo injection into saline-perfused organs or vessels for transplantation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                               JT 4
7225/c
ABV77225 standard; DNA; 230 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pPASTBac1 (pFB). A cytomegalovirus nuclear-targeted lacZ expression cassette (see ABL57028) was inserted into the vector at an Stul site (nucleotides 121-126 of the present sequence), in opposite orientation to the vector's polyhedrin promoter, to construct a nuclear-targeted beta-galactosidase encoding baculovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Delivery of gene product, comprises applying the gene in baculovirus vector to blood-free body compartment, useful e.g. for gene therapy of vascular diseases using periadventitial collar -
                                                                                                                        29-MAY-2001;
29-NOV-2001;
                                                                                                                                                                                                                                                                                                           Baculovirus; vector; spinal cord; central nervous system; periadventitial gene transfer; enzyme replacement; gene tl subarachnoid haemorrhage; gene delivery; cerebral choroid
                                WPI; 2003-129500/12
                                                             Yla-herttuala
                                                                                                                                                                     28-MAY-2002;
                                                                                                                                                                                                      05-DEC-2002
                                                                                                                                                                                                                                   WO200296469-A2
                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                brain disorder; cancer; brain cancer;
                                                                                                                                                                                                                                                                                                                                                                            Nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                          28-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                         ABV77225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is a portion of baculovirus transfer vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example
                                                                                          (ARKT-) ARK THERAPEUTICS LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The specification was published without claims.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Fig 1; 20pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATGATCCTCTAGTACTTCTCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATGATCCTCTAGTACTTCTCGAC
                                                                                                                                                                                                                                                                                                                                                                          sequence of a CMV-nt lac2 expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
llarity 100.0%;
Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP;
                                                                                                                        2001WO-GB02383.
2001GB-0028620.
                                                                                                                                                                       2002WO-GB02504.
                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            64 A; 56 C;
                                                             Airenne
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>..</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            53 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 24; DB 2.
Pred. No. 0.16;
Mismatches
                                                             Lehtolainen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57 T; 0 other;
                                                                                                                                                                                                                                                                                                lacZ; ss.
                                                                                                                                                                                                                                                                                                           cerebral choroid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24; Length 230;
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                                                                                                                                                                                                                                                                                                                                                                          cassette
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                                                                                                                                                                                                                                                                                                                             therapy;
                                                                                                                                                                                                                                                                                                                                                                        fragment.
                                                                                                                                                                                                                                                                                                                                             CNS;
                                                                                                                                                                                                                                                                                                             plexus
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Use of baculovirus vector containing a gene,

for the manufacture

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ARESULT 5
ABK49828/c
ID ABK498
XX ABK498
XX ABK498
XX ABK498
XX da; AD
KW dai; AD
KW anniar
KW chromo
KW chromo
XX Synthe
XX Synthe
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XX Synthe
XX Hozono
OS Synthe
XX II-OCT
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PR 11-OCT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antiarthritic; antiulcer; vulnerary; neovascularisation; angioma; diabetic omentopathy; chronic rheumatoid arthritis; gene therapy; refractory skin ulcer; gastric ulcer; post-operative healing failure reprolysin-type 2N-metalloprotease domain; disintegrin-like domain; thrombospondin type 1 domain; sexual cycle; tumour; 5P-syndrome delectromosome 5p15.2-15.3; Cri-du-chat syndrome; pFastBacl-HT.
                              Ohara O,
Kanzaki K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ds; ADAMTS; cytostatic; antidiabetic; antirheumatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plasmid pFastBac1-HT region encoding MycHis tag.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        system (CNS),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              condition that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      medicament for treating a condition mediated by spinal nervous system, by the action of a gene or its product
                                                                                                                                                                                         11-OCT-2000;
02-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                             WO200231163-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABK49828;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABK49828 standard; DNA; 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The specification describes the use of a baculovirus vector containing
                                                                                                                                                                                                                                                                         11-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    225
                                                                                                         KAZUSA DNA
MITSUBISHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          for the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      230
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATGATCCTCTAGTACTTCTCGAC
                                                    Nagase T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fig 1; 14pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B₽;
                                                                                                                                                                                      2000JP-0311309.
2001JP-0102905.
                                                                                                                                                                                                                                                                         2001WO-JP08913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  by the action of a gene or its product.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             manufacture of a medicament
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                  /product= "MycHis tag"
/note= "No start or stop codon"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     be mediated via the spinal cord or central nervous he action of a gene or its product. Baculoviruses are
                                                                                                         RES INST FOUND. PHARMA CORP.
                                                          Nomura N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   56 C; 53 G; 57 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 24; DB 2
Pred. No. 0.16;
Mismatches
                                                       Yano K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24
                                                          Murakami K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          for the treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MycHis tag;
                                                          Yasuda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or central
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             lain; TSP1;
deletion;
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0;

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RESULT 6
AAAB918/c
ID AAAB89
XX AAAB89
XX D-MAR
DT 05-MAR
XX Nucleo
XX Ricin
KW Ricin
KW Loxin;
KW Loxin;
KW Loxin;
KW Chimer
XX Chimer
XX Chimer
XX W02000
XX O9-NOV
XX 27-APR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a polypeptide belonging to the ADAMTS family is completed from sequences appearing as AAU79496, AAU79497 and AAU79499, a protein that contains the polypeptide, a protein having not less than CC 50% homology with the amino acid sequence of the polypeptides or a cids deleted, substituted, added or inserted. Also included are the polypeptide modified from any of the polypeptides but with some amino cc golymucleotides encoding the polypeptides (or their complementary cc strands or variants), a recombinant vector containing any of the polymucleotides encoding the polypeptides (or their complementary cc polymucleotides or a transformant which is transformed with the recombinant vector, producing the polypeptide protein or peptide by culturing the creating the polypeptide or inhibit activity of the polypeptide and screening compounds to promote or inhibit activity of the polypeptide or protein, or to promote or inhibit expression of the polymucleotide, vector, transformant or/and antibody, particularly in the polypeptide, protein, peptide, protein or polymucleotide, vector, transformant or/and antibody, particularly in the polymucleotide of a test compound for contact before evaluating the cativity by measuring signal changes. The polypeptide and encoded gene cativity by measuring signal changes. The polypeptide and encoded gene cativity by measuring signal changes. The polypeptide and encoded gene cativity by diseases due to neovascularisation, diabetic omentopathy.

CC chronic rheumatoid arthritis, angioma, refractory skin and gastric ulcers and post-operative healing failure, including gene therapy.

CC chronic rheumatoid arthritis, angioma, refractory skin and gastric ulcers and because of the serve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 24
                                                                                                                                                                                                                       Ricin toxin B; RTB3; crystal protein; toxin; transgenic plant; insect resist lectin; pFASTBAC1; ds.
                                                                                                                                                      Chimeric - Ricinus communis.
Chimeric - Baculovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cri-du-chat syndrome). The present sequence is a region of plasmid pFastBacl-HT used to make the expression Plasmid pFastBacl-HT-PJ01256 used to express DNA encoding an ADAMTS protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human brain-originated ADAMTS family polypeptide and encoded gene, applicable in diagnosis and screening compounds for drug compositions in treating diseases due to e.g. neovascularisation
27-APR-2000; 2000WO-GB01633
                                                       0,9-NOV-2000
                                                                                                      WO200066755-A2
                                                                                                                                                                                                                                                                                                                         Nucleotide sequence of ricin toxin B chain RTB3 in pFASTBAC1
                                                                                                                                                                                                                                                                                                                                                                           05-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                           AAA88918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA88918 standard; DNA; 604 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 20; Fig 16; 172pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-372277/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           350 TATGATCCTCTAGTACTTCTCGAC 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 TATGATCCTCTAGTACTTCTCGAC 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU80152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 24; DB 24; Length 432; ilarity 100.0%; Pred. No. 0.17; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP; 138 A; 105 C; 82 G; 107 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                     resistance;
                                                                                                                                                                                                                                                                            insecticide; pesticide
                                                                                                                                                                                                                                                   crop protection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Сарв
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RESULT 7
AAA88917/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cc under the control of the polyhedrin promoter. The invention cc provides nucleic acids (see AAA88919-24) encoding pesticidal fusion crowdides nucleic acids (see AAA88919-24) encoding pesticidal fusion crowdides comprising a toxin domain and a heterologous binding domain capable of binding non-specifically to a cell membrane without disrupting that membrane. The toxin domain is preferably obtained from Bacillus thuringiensis crystal proteins CryIA(b) or CryIA(c), and the binding domain is preferably derived from a lectin, especially cricin toxin B chain. The use of such fusions may help to inhibit the acquisition of resistance in a pest population treated with the protein. Vectors (e.g. bacullovirus vectors or vectors suitable for creating are also provided. Expression of the fusion protein in a collant to a pest, allowing control of e.g. Lepidoptera, Coleoptera, Collicidae, Simuliidae, Hymenoptera, Homoptera, Diptera and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                           Chimeric -
                                                                                                                                                                                                                                                                        Ricin toxin B; RTB2; crystal protein; insecticide; pesticide
                                                                                                                                                                                                                                                                                                       Nucleotide sequence of ricin toxin B chain RTB2 in pFASTBAC1
                                                                                                                                                                                                                                                                                                                                       05-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                      AAA88917;
                                                                                                                                                                                                                                                                                                                                                                                                      AAA88917 standard; DNA; 860 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 604 BP; 180 A; 121 C; 134 G; 169 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is that of ricin toxin B chain RTB3 DNA in baculovirus transfer vector prasTBAC1, in which the DNA was cloned
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 10; Fig 3e; 81pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      comprising a toxin resistant to pests
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel nucleic acid molecule encoding a pesticidal fusion polypeptide comprising a toxin and a binding domain for producing transgenic plants
                                                             28-APR-1999;
                                                                                             27-APR-2000; 2000WO-GB01633.
                                                                                                                            09-NOV-2000
                                                                                                                                                                                                                                        toxin; transgenic plant; insect resistance; crop protection;
lectin; pFASTBAC1; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Orthoptera pests.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-007228/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-APR-1999;
                             (PLAN-) PLANT BIOSCIENCE LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    599 TATGATCCTCTAGTACTTCTCGAC 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 TATGATCCTCTAGTACTTCTCGAC 24
                                                                                                                                                                                           Baculovirus.
                                                                                                                                                                                                          Ricinus communis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .99GB-0009796.
                                                             99GB-0009796.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 24; DB 2:
Pred. No. 0.17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 604;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
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Christou P,

Mehlo L;

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RESULT 8
AAA88916/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  from Bacillus thuringiensis crystal proteins CryIA(b) or CryIA(c), and the binding domain is preferably derived from a lectin, especially ricin toxin B chain. The use of such fusions may help to inhibit the acquisition of resistance in a pest population treated with the protein. Vectors (e.g. baculovirus vectors or vectors suitable for use in a plant), host cells, and transpenic plants (especially rice or maize) are also provided. Expression of the fusion protein in a plant is useful for influencing or affecting the toxicity of a plant is useful for influencing or affecting the toxicity of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence is that of ricin toxin B chain RTB2 DNA in baculovirus transfer vector pFASTBAC1, in which the DNA was cloned under the control of the polyhedrin promoter. The invention provides nucleic acids (see AAAB8919-24) encoding pesticidal fusion proteins comprising a toxin domain and a heterologous binding domain capable of binding non-specifically to a cell membrane without disrupting that membrane. The toxin domain is preferably obtained
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ricin toxin B; RTB1; crystal protein; insecticide; pesticide; toxin; transgenic plant; insect resistance; crop protection; lectin; pFASTBAC1; ds.
comprising a toxin resistant to pests
                              Novel nucleic acid molecule encoding a pesticidal fusion polypeptide comprising a toxin and a binding domain for producing transgenic plan
                                                                                                                               WPI; 2001-007228/01.
                                                                                                                                                                                        Christou P,
                                                                                                                                                                                                                                                                                                                                                                                      27-APR-2000; 2000WO-GB01633
                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200066755-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chimeric - Ricinus communis.
Chimeric - Baculovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAA88916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA88916 standard; DNA; 956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 860 BP; 256 A; 164 C; 199 G; 241 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Orthoptera pests.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 10; Fig 3d; 81pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              comprising a toxin resistant to pests
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel nucleic acid molecule encoding a pesticidal fusion polypeptide comprising a toxin and a binding domain for producing transgenic plants
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                                                                                                                                                                                                                                                       (PLAN-) PLANT BIOSCIENCE LTD
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licidae, Simuliidae, Hymenoptera, Homoptera, Diptera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence of ricin toxin B chain RTB1 in pFASTBAC1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                           Mehlo L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                       99GB-0009796
                          and a binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 24; DB 22; Length 860; 100.0%; Pred. No. 0.18; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       832
                              transgenic plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Coleoptera,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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RESULT 9
AAI64290/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is that of ricin toxin B chain RTB1 DNA in CC baculovirus transfer vector pFASTBACI, in which the DNA was cloned under the control of the polyhedrin promoter. The invention crowder the control of the polyhedrin promoter. The invention provides nucleic acids (see AAA88919-24) encoding pesticidal fusion proteins comprising a toxin domain and a heterologous binding domain cropable of binding non-specifically to a cell membrane without control of the toxin domain is preferably obtained from Bacillus thuringiensis crystal proteins CrylA(c), condition toxin B chain. The use of such fusions may help to inhibit the acquisition of resistance in a pest population treated with the protein. Vectors (e.g. baculovirus vectors or vectors suitable for use in a plant), host cells, and transgenic plants (especially rice cor maize) are also provided. Expression of the fusion protein in a cor plant is useful for influencing or affecting the toxicity of a corthorors as allowing control of e.g. Lepidoptera, Coleoptera, Collicidae, Simulidae, Hymenoptera, Homoptera, Diptera and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                       Serine protease; D-G; human; zymogen; enzyme; cytostatic; antilinflammatory; dermatological; anticoagulation; cancer; skin disorder; neuropathic pain; inflammatory disorder; coagulation diathesis; thrombosis; laundry detergent; skin
                                          30-JUN-2000; 2000US-0607745.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protease D-G cataytic domain fusion gene construct encoding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAI64290 standard; DNA; 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     orthoptera pests.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 10; Fig 3c; 81pp; English
                                                                      08-JUN-2001;
                                                                                                     10-JAN-2002
                                                                                                                                 WO200202011-A1
                                                                                                                                                                                        mat_peptide
                                                                                                                                                                                                                                   sig_peptide
                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
              (ORTH ) ORTHO-MCNEIL PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                        therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    951 TATGATCCTCTAGTACTTCTCGAC 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      956 BP; 286 A; 188 C; 214 G; 268 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                       2001WO-US18568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                         gene;
                                                                                                                                                                                            94..888
                                                                                                                                                                                                                                      /trans1_except= 13..93
                                                                                                                                                                                                                                                                  /*tag= a
/product= "protease D-G"
                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                        *tag=
                                                                                                                                                                                                         'note= "Prolactin signal sequence"
                                                                                                                                                                                                                                                                                                                                                                           ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                               "Mature
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 24; DB 22
Pred. No. 0.18;
0; Mismatches
                                                                                                                                                               protease D-G'
                                                                                                                                                                                                                                                    (pos:
                                                                                                                                                                                                                                                      640..642, aa: Gln)
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                                                                                                                                                                                                                                                                                                                                                                                          care;
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RESULT 10
AAH74721/c
ID AAH74721 standard; DNA; 1430
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Best Local (
                                                                                                                                                                                                                          Active polypeptide; ectoparasitic leech; Rhynchobdellida; C3bBb complex; complement activation; complement factor D; haemodialysis; catheter; cardio-pulmonary bypass; extra-arterial stent; transplant rejection; autoimmune disease; lupus arthritis; rheumatoid arthritis; sepsis; glomerulonephritis; nephritis; nephropathy; reporfusion; anaphylaxis; asthma; skin reaction; infection; sickle cell anemia; haemolytic anemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    diathesis/thrombosis. The polynucleotide encoding the protease is useful for identifying, detecting or isolating mutant forms of DNA molecules encoding the protease. The protease is useful for identifying modulators of the functional protease. The D-G protein can be used for formulation of compositions for laundry detergents and skin care products. Protease D-G gene therapy may be used to introduce protease D-G into the cells of target organisms. As the D-G protein is derived from a human, it is less likely to produce an allergic reaction in sensitive individuals when used in formulations for laundry detergents and skin care products. The current sequence represents the protease D-G cataytic domain in the
                                                                                            05-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                which play an important role in processes such as digestion and regulatory amplification cascades through the proteolytic activation of inactive zymogen precursors. Protease D-G modulating compounds are useful for treating a condition which is mediated by protease D-G, e.g. cancer, skin disorders, neuropathic pain, inflammatory disorders, or coagulation skin disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to an isolated and purified nucleic acid that encodes a serine protease called D-G protein. The activity of the protein of the invention may be described as cytostatic, antiinflammatory,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic acid encoding a serine protease called D-G protein which useful for identifying modulators that are useful for treating a condition which is mediated by protease D-G, e.g. cancer, skin disorders, or neuropathic pain -
                24-DEC-1999;
                                                  21-DEC-2000; 2000WO-GB04971.
                                                                                                                                WO200147963-A2
                                                                                                                                                                    Placobdella papillifera
                                                                                                                                                                                                                                                                                                                                                              Nucleotide sequence of a leech active polypeptide fragment.
                                                                                                                                                                                                                                                                                                                                                                                                      29-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1189 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                dermatological and anticoagulation. The serine protease of the invention is a member of the trypsin/chymotrypsin-like (S1) serine protease family.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1087
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      activation construct encoding sequence.
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llarity 100.0%;
Conservative 0
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                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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                99GB-0030659.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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Pred. No. 0.18;
Mismatches
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CC antenna, skin reactions, infections, sickle cell anemia and haemolytic antenna involving activation of alternate complement pathway in a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                       Chimeric -
                                                                                                                                                                                                                                                  CryIA(b); crystal protein; insecticide; pesticide; toxin; transgenic plant; insect resistance; crop protection; pFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel polypeptides from the leech Placobdella papillifera which inhibit alternate pathway of complement activation, useful for treating rheumatoid arthritis, sepsis, asthma involving alternate complement
                                                                                           WO200066755-A2
                                                                                                                                                                                                                                                                                                   Nucleotide sequence of CryIA(b) in pFASTBAC1.
                                                                                                                                                                                                                                                                                                                                  05-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                 AAA88914;
                                                                                                                                                                                                                                                                                                                                                                                             AAA88914 standard; DNA; 2062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1430 BP; 419
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1126 TATGATCCTCTAGTACTTCTCGAC 1103
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATGATCCTCTAGTACTTCTCGAC 24
                                                                                                                                                                                       Bacillus thuringiensis Baculovirus.
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ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                           97..1944
                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wallis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; 296 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 24; DB 2:
Pred. No. 0.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   296 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   419 T; 0 other;
                                                                                                                                                                                                                                                   protection; pFASTBAC1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1430;
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28-APR-1999;

27-APR-2000; 2000WO-GB01633.

09-NOV-2000

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AAA8915/c
ID AAA889
XX AAA889
XX AAA889
XX CAAA889
XX Nucleo
XX CryIA(
KW Cransg
KW Cransg
KW Cransg
KW Chimer
OS Chimer
XX Chimer
XX Chimer
OS Chimer
XX O9-NOV
XX W02000
XX 09-NOV
XX 28-APR
XX 28-APR
XX 28-APR
XX 28-APR
XX 26AA889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence is that of Bacillus thuringiensis crystal protein CryIA(b) DNA in baculovirus transfer vector pFASTBAC1, in which the gene was cloned under the control of the polyhedrin protein crystal grownoter. The invention provides nucleic acids (see AAA88919-24) encoding pesticidal fusion proteins comprising a toxin domain and a heterologous binding domain capable of binding non-specifically to a cell membrane without disrupting that membrane. The toxin domain is preferably obtained from CryIA(b) or CryIA(c), and the binding contain. The use of such fusions may help to inhibit the acquisition of resistance in a pest population treated with the protein. Vectors (e.g. baculovirus vectors or vectors suitable for use in a plant), host cells, and transgenic plants (especially rice or maize) are also provided. Expression of the fusion protein in a plant is useful for influencing or affecting the toxicity of a plant to a pest, allowing control of e.g. Lepidoptera, Coleoptera, Culcicidee, Simuliidae, Hymenoptera, Homoptera, Diptera and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                             28-APR-1999;
                                                                                      27-APR-2000; 2000WO-GB01633.
                                                                                                                                                                           WO200066755-A2
                                                                                                                                                                                                                                                                                                          Chimeric -
                                                                                                                                                                                                                                                                                                                                                                                          CryIA(c); crystal
transgenic plant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleotide sequence of CryIA(c) in pFASTBAC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAA88915;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAA88915 standard; DNA; 2062
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Orthoptera pests.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 9; Fig 3a; 81pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 comprising a toxin resistant to pests
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel nucleic acid molecule encoding a pesticidal fusion polypeptide comprising a toxin and a binding domain for producing transgenic plants
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    (PLAN-) PLANT BIOSCIENCE LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2057 TATGATCCTCTAGTACTTCTCGAC 2034
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ψ,
                                                                                                                                                                                                                                                                                                        Bacillus thuringiensis Baculovirus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
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                                           99GB-0009796.
                                                                                                                                                                                                                                          Location/Qualifiers 97..1944
                                                                                                                                                                                                                                                                                                                                                                                            protein; insecticide; pesticide; toxin;
insect resistance; crop protection; pFASTBAC1;
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100.0%; Pred. No. 0.19;
tive 0; Mismatches
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RESULT 13
AAA88921/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           which the gene was cloned under the control of the polyhedrin of promoter. The invention provides nucleic acids (see AAA88919-24) cencoding pesticidal fusion proteins comprising a toxin domain and a heterologous binding domain capable of binding non-specifically to a cell membrane without disrupting that membrane. The toxin domain is preferably obtained from CryIA(b) or CryIA(c), and the binding domain is preferably derived from a lectin, such as ricin toxin B chain. The use of such fusions may help to inhibit the acquisition of resistance in a pest population treated with the protein. Vectors (e.g. baculovirus vectors or vectors suitable for use in a plant), host cells, and transgenic plants (especially rice or maize) are also provided. Expression of the fusion protein in a complant to a pest, allowing control of e.g. Lepidoptera, Coleoptera, Culcicidee, Simuliidae, Hymenoptera, Homoptera, Diptera and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                          Christou P,
                                                                                                                                                                                                                                             Chimeric - Bacillus thuringiensis
Chimeric - Ricinus communis.
                                                                                                                                                                                                                                                                                         crop protection; pFASTBAC1;
                                                                                                                                                                                                                                                                                                         CryIA(b); crystal protein; ricin toxin B; RTB3; lectin;
insecticide; pesticide; toxin; transgenic plant; insect resistance;
                                                                                                                                                                                                                                                                                                                                                        Nucleotide sequence of CryIA(b)-RTB3 fusion in pFASTBAC1.
                                                                                                                                                                                                                                                                                                                                                                                        05-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                     AAA88921;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAA88921 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2062 BP; 544 A; 532 C; 446 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Orthoptera pests.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence is that of Bacillus thuringiensis crystal protein CryIA(c) DNA in baculovirus transfer vector pFASTBAC1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 9; Fig 3b; 81pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel nucleic acid molecule encoding a pesticidal fusion polypeptide comprising a toxin and a binding domain for producing transgenic plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Christou P, Mehlo L;
                                                                                                       28-APR-1999;
                                                                                                                                      27-APR-2000; 2000WO-GB01633.
                                                                                                                                                                                                WO200066755-A2
                                                                                                                                                                                                                                Chimeric -
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                                                                        PLANT BIOSCIENCE LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATGATCCTCTAGTACTTCTCGAC 24
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                                                                                                                                                                                                                               Baculovirus.
                                        Mehlo L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Silarity 100.0%; F
                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                       99GB-0009796.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 24; DB 22
Pred. No. 0.19;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540 T; 0 other;
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WPI; 2001-007228/01

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
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                                                      comprising a resistant to
                                                                                                                                                                                                                                                                                                                          Chimeric - Bacillus thuringiensis
Chimeric - Ricinus communis.
Chimeric - Baculovirus.
                                                                  Novel nucleic acid molecule encoding a pesticidal fusion polypeptide comprising a toxin and a binding domain for producing transgenic plants
                        Claim 11; Fig 3k;
                                                                                                                                              Christou P,
                                                                                                                                                                                                         28-APR-1999;
                                                                                                                                                                                                                                     27-APR-2000;
                                                                                                                                                                                                                                                                   09-NOV-2000
                                                                                                                                                                                                                                                                                              WO200066755-A2
                                                                                                                                                                                                                                                                                                                                                                                                                   CryIA(c);
                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleotide sequence of CryIA(c)-RTB3 fusion in pFASTBAC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-MAR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA88924 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel nucleic acid comprising a toxin resistant to pests
                                                                                                                                                                             (PLAN-)
                                                                                                                                                                                                                                                                                                                                                                                    A(c); crystal protein; ricin toxin B; cticide; pesticide; toxin; transgenic protection; pFASTBAC1; ds.
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                                                                                                                  2001-007228/01.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; ilarity 100.0%; Conservative 0
                                                      pests
                                                                                                                                              Mehlo L;
                                                                                                                                                                                                                                     2000WO-GB01633.
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                                                                                                                                                                                                         99GB-0009796.
                        81pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 654 A; 617 C; 521 G;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               molecule encoding a pesticidal fusion polypeptide and a binding domain for producing transgenic plants
                                                                                                                                                                                                                                                                                                                                                                                                   toxin; transgenic
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Pred. No. 0.19;
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nucleotide

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between

DNA encoding

This nucleotide sequence is that of a fusion between DNA encoding crystal protein Cryst(b) (see AAA88914) of Bacillus thuringiansis and DNA encoding ricin toxin B RTB2 (see AAA88917) in baculovirus transfer vector pFASTBAC1, in which the fusion was cloned under the control of the polyhedrin promoter. This is an example of claimed nucleic acids encoding pesticidal fusion proteins between a toxin domain and a heterologous binding domain capable of binding non-specifically to a cell membrane without disrupting that membrane. The use of such

Claim 11; Fig 3g; 81pp; English

to pests

Novel nucleic acid molecule encoding a pesticidal fusion polypeptide comprising a toxin and a binding domain for producing transgenic plants

WPI; 2001-007228/01.

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RESULT 15
AAA88920/c
ID AAA889
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                       Chimeric -
Chimeric -
Chimeric -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 crop protection; pFASTBAC1; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CryIA(b); crystal protein; ricin toxin B;
insecticide; pesticide; toxin; transgenic
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                                                                                                                                                                                                                                                       Christou
                                                                                                                                                                                                                                                                                                                                               27-APR-2000; 2000WO-GB01633.
                                                                                                                                                                                                                                                                                                                                                                              09-NOV-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacillus thuringiensis Ricinus communis. Baculovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence of CryIA(b)-RTB2 fusion in pFASTBAC1
                                                                                                                                                                                                                                               Mehlo L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
ilarity 100.0%;
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Pred. No. 0.19;
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plant; insect resistance;
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CC fusions may help to inhibit the acquisition of resistance in a pest CC population treated with the protein. Vectors (e.g. baculovirus CC vectors or vectors suitable for use in a plant), host cells, and CC transgenic plants (especially rice or maize) are also provided.
CC Expression of the fusion protein in a plant is useful for influencing CC or affecting the toxicity of a plant to a pest, allowing control of CC e.g. Lepidoptera, Coleoptera, Culicidae, Simuliidae, Hymenoptera, CC Homoptera, Diptera and Orthoptera pests.

XX Sequence 2692 BP; 730 A; 660 C; 586 G; 716 T; 0 other;

Query Match 100.0%; Score 24; DB 22; Length 2692;
Best Local Similarity 100.0%; Pred. No. 0.2;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Search completed: February 16, 2004, 09:18:11 Job time : 12.7756 secs

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Result
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Maximum Match 100%
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Maximum DB seq length: 200000000
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Match Length DB
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BI024729 RC5-
AQ105178 HS 3
AZ805647 2M00
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AW181442 pa02g07.y	AW181442	9	378	71.7	17.2	45
MIKO-BN	1531	TO	7.67	71.7	17.2	44
MRO-NN11	F95466	10	252		17.2	ω.
F858704	F85870	10	235	71.7	17.2	42
90760 P041	BU890760	13	201	71.7	17.2	41
3P0586 KR	AW064152	9	188	71.7	17:2	40
59022	5902	10	164		7.	39
45612 PM2-	4561	12	125	71.7	7.	38
95266	9526	28	728	72.5	7.	37
21578	2157	29	521	Ņ	7	
56970	697	28	415		7.	35
25588	2558	29	1213	ω ·	.7	34
84130	CB984130	14	792	73.3	7.	ω ω
BG581848 EST483584	BG581848	10	740	73.3	7.	32
4024	AV404024	9	704	•		31
BP126081 BP126081	BP126081	12	695	73.3	•	30
AV403040 AV403040	AV403040	ဖ	695	73.3	•	29
BQ147235 NF038C01F	BQ147235	13	659	73.3	•	28
BF646400 NF071F10E	BF646400	10	655	•	17.6	27
AW586847 EST318470	5868	9	645	•	•	26
BG449733 NF007C08I	BG449733	10	640	73.3		25
BE460948 EST412367	BE460948	10	621		7.	24
BF643933 NF092B11E	BF643933	10	609	•	17.6	23
BH877505 hr38e09.b	BH877505	28	572	ü	17.6	22
RPCI-24-	AZ750896	28	533	73.3		21
CSC5D1	AI397571	ဖ	504	u	7.	20
	AI083079	9	493	ω	.7	19
CB891487 EST648456	CB891487	14	327	73.3	7.	18
AW037530 EST278857	AW037530	9	195	ω	•	17
3112 hf32c	AW573112	9	484	4		16
ž	BZ576392	29	1661	ū		15
AQ862478 nbeb0019A	AQ862478	28	815	75.8	8	14
BZ998034 PUGFY17TD	BZ998034	29	799	5		13
BZ506781 BONFA77TF	BZ506781	29	741	5	•	12
8	CA781659	14	737	5	•	1
BH022001 GH MBb000	BH022001	28	609	ū	•	10
HS_2019_	AQ305217	28	809	5	•	9
1009	2441	29	600	75.8	18.2	۵
ic090	BZ309602	29	0	5		7
0145	AA660276	v	566	75.8	18.2	σ
AQ502165 V8B1 mTn-	AQ502165	28	491	75.8	æ	σ

ALIGNMENTS

	1.00TIS	RITT 267 B20 bm mRNA linear EST 28-NOV-2002
	ITION	4F1 CSEQCHN73 Gallus gallus cDNA clone ChEST
		sequence.
	ACCESSION	BU371267 .
	VERSION	BU371267.1 GI:25879268
	KEYWORDS	EST.
	SOURCE	Gallus gallus (chicken)
	ORGANISM	Gallus gallus
		Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
		Archosauria; Aves; Neognathae; Galliformes; Phasianidae;
		Phasianinae; Gallus.
	REFERENCE	1 (bases 1 to 820)
	AUTHORS	Boardman, P.E., Sanz-Ezquerro, J., Overton, I.M., Burt, D.W., Bosch, E.,
ited,		Fong, W.T., Tickle, C., Brown, W.R.A., Wilson, S.A. and Hubbard, S.J.
	TITLE	A Comprehensive Collection of Chicken cDNAs
	JOURNAL	Curr. Biol. 12 (22), 1965-1969 (2002)
	MEDLINE	22335534 .
	PUBMED	12445392
	COMMENT	Contact: Simon Hubbard
		Department of Biomolecular Sciences
0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		University of Manchester Institute of Science and Technology (UMIST
5-MT025		PO Box 88, Manchester, M60 10D, UK
3000 A 10067G12		Tel: 01612008930 Fax: 01612360409

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KEYWORDS
SOURCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 293)

Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R., Nagai,M.A., da Silva,W. Jr., Zago,M.A., Bordin,S., Costa,F.F., Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H., Brunstein,A., deOliveira,P.S., Bucher,P., Jongeneel,C.V., O'Hare,M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 TATGATCCTCTAGTACTTCTCGAC 24
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=RC5&t2=RC5-MT0259-
                                                                                                                                                                              Contect: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 and
                                                                                                         Tel: +55-11-2704922
Fax: +55-11-2707001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BI024729 293 bp mRNA linear RC5-MT0259 Homo sapiens cDNA,
                                                                                                                                                                                                                                                                                                                                                                 sequence tags
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                                                                                                                                                                                                                                                                                                                                                                                                                 Simpson, A.J.
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Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note=Worgan: brain; Vector: pBluescript II KS(+); Site_1: EcoRI; Site_2: Not1; This normalized library was constructed Trom 1 million independent clones. cDNA synthesis was initiated using an oligo(dT) primer, using methylated C in the first strand synthesis reaction. Following this first strand reaction, double-stranded cDNA was blunted, ligated to NotI adapters, digested with EcoRI size-selected, and cloned into the NotI and EcoRI compatible sites of a custom modified MCS of the pBluescript (KS+) vector. The library was normalized in 2 rounds using conditions adapted from Soares et al., PNAS (1994) 91: 9228-9232 and Bonaldo et al., Genome Research 6 (1996): 791, except that a significantly longer reannealing hybridization was used."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Simon. Hubbard@umist.ac.uk.
Location/Qualifiers
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/dev_stage="adult"
/lab_host="DH10B"
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/strain="Compton Line 15I"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Mahairas GG, Wallace JC, High Throughput Sequencing Center University of Washington 401 Queen Anne Avenue North, Seattl Tel: (206) 616-3618
Fax: (206) 616-3887
Email: jwallace@u.washington.edu Sequence Tagged Connector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases 1 to 389)

Mahairas,G.G., Wallace,J.C., Smith,K., Swartzell,S., Holzman,T., Weller,A., Shaker,R., Furlong,J., Young,J., Zhao,S., Adams,M.D. au Rocker, Shaker,R., Furlong,J., Young,J., Zhao,S., Adams,M.D. au Rocker, R., Shaker,R., Furlong,J., Young,J., Zhao,S., Adams,M.D. au Rocker,R., Shaker,R., Shake
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389 bp DNA linear GSS 28-AU HS_3000_A1_H12_MR CIT Approved Human Genomic Sperm Library D | sapiens genomic clone Plate=3000 Col=23 Row=0, genomic survey
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nilarity 90.9%;
Conservative
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Location/Qualifiers
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/mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="MT0259"
/note="Organ: marrow; Vector: pucl8; Site_1: SmaI; Site_2: SmaI; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196, 716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
70 a 76 c 73 g 74 t
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/note="Organ: sperm;
E-Coli DH10B"
                                                                                                                                                                                    /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                  clone/
                                                                                                                'sex="male"
                                                                                                                                                      clone="Plate=3000 Col=23
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                                     lib="CIT Approved Human Genomic Sperm Library D"
Organ: sperm; Vector: pBeloBAC11; BAC Clones in
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     749 bp DNA linear GSS 20-FEB-200
2M0067G12F Mouse 10kb plasmid UUGC1M library Mus musculus genomic
clone UUGC2M0067G12 F, genomic survey sequence.
AZ805647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Erro
Plate: 0067 row: G column: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Robert B. Weiss
University of Utah Genome
University of Utah
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Roge, R., Stokes, R., Tingey, A., von Niederhausern, A., and Wright, D., Weiss, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Class: plasmid ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seq primer: CGTTGTAAAACGACGGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
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was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purfited and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD2 (gil 4732114 gb) AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USA
                                                                                                                                                                                                                                                                                                  /clone_lib="Mouse 10kb plasmid UUGC1M library" /note="Vector: PWD42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Biomedical Polymers Research Bldg., 20
                                                                                                                                                                                                                                                                               Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                               mol_type="genomic DNA"
strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                               sex="Male
                                                                                                                                                                                                                                                                                                                                                                                              clone="UUGC2M0067G12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                          lab_host="E. Coli strain XL10-Gold,
                                                                                                                                                                                                                                                                                                                                                                                                               _xref="taxon:10090"
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Pred. No. 5.
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   AA660276
00145 MtRHE Medicago
binding protein p46,
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Query Match
Best Local Similarity
Matches 20; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: anuj.kumar@yale.edu
te of mTn-3xHA/lacZ insertion.
Seq primer: GGCCTTCTTTCTTTGGAAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yale University
P.O. Box 208103, New Haven, CT 06520-8103, USA
Tel: 203 432 9949
Fax: 203 432 6161
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Large-Scale Analysis of the Yeast Genome by Transposon Tagging and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Saccharomyces cerevisiae
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 TATGATCCTCTAGTACTTCT 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Class: transposon-tagged.
Location/Qualifiers
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V8B1 mTn-3xHA/lacZ Insertion Library Saccharomyces cerevisiae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Kumar A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene Disruption
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Saccharomycetales; Saccharomycetaceae; Saccharomyces.
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ATGATCCTCTTGTACTTGTCTAC 129
                                      ATGATCCTCTAGTACTTCTCGAC 24
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                                                                                            Conservative
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                                                                                                                                                                                                          /Clone lib="mTn-3xHA/lacZ Insertion Library"
/note="Vector: pHSS6-Sa1; A yeast genomic DN library
(lacking mitochondrial DNA) was prepared in pHSS6-Sa1;
genomic DNA was size-fractionated (DNA of roughly 2-3 kb
in length) prior to cloning. This library was
subsequently mutagenized with a mTn-3xHA/lacZ
minitransposon containing lacZ, URA3, and tet resistance.
a 127 c 119 g 116 t 4 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and selected for ampicillin resistance."
203 c 144 g 191 t
                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="genomic DN
/db_xref="taxon:4932"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Saccharomyces cerevisiae"
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95.0%;
                                                                                                                75.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                 host="E. coli"
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Pred. No. 1.1e+03;
0; Mismatches
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Pred. No. 1.1e+03;
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566 bp mRNA truncatula cDNA 5' mRNA sequence.

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ś
                                                                                                                                                                                                                                                                                                                               600 bp DNA linear G. ic09c08.bl WGS-ZmaysF (JM107 adapted methyl filtered) genomic clone ic09c08 5', genomic survey semiarra BZ309602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20;
                                                                        Rabinowicz,P.D., O'Shaughnessy,A.L., Balija,V., Dedhia,N.,
Katzenburger,F., King,L., Miller,B., Muller,S., Nascimento,L.,
Zutavern,T., McCombie,W.R. and Martienssen,R.A.
Genomic shotgun sequences from Zea mays (methyl-filtered)
                                                                                                                                                                            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoldeae; Andropogoneae; Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Stanford University
Gilbert Biology, Stanford, CA 94305-5020,
Tel: 650 723 3232
Fax: 650 725 8309
                                Unpublished Contact: W. Richard McCombie
                                                                                                                                                                                                                                                                                            BZ309602.1 GI:24670634 GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Long SR

Department of Biological Sciences and Howard Hughes Medical
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Expressed sequence tags from a root-hair-enriched medicago
truncatula cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Medicago truncatula

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid;
eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae;
                                                                                                                                                                                                                                                   Zea mays
                                                                                                                                                                                                                                                                      Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seq primer:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plant Physiol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 566)
Covitz, P.A., Smith,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA660276
AA660276.1 GI:2604320
EST.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATGATCCTCTAGTACTTCTCGAC 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATGATAGTCTTGTACTTCTNGAC 473
                                                                                                                                                             (bases 1 to 600)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fa.srl@forsythe.stanford.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clome_lib="MtRHE"
//clome_Trgan: Root; Vector: pBK-CMV; Site_1: EcoRI;
/note="Organ: Root; Vector: pBK-CMV; Site_1: EcoRI;
Site_2: XhoI; cDNA was synthesized from a pooled mRNA preg
from_elongating root hairs (30% w/w) and 2-3cm root tips
(70% w/w). XhoI-oligo-dT linker-primer and EcoRI
adaptors were used. cDNAs was cloned unidirectionally
into lambda ZAP Express (Stratagene), amplified, and
mass-excised into pBK-CMV vector plasmids. More
information is available at http://bio-SRL8.stanford.edu."
a 121 c 135 g 127 t 5 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Medicago truncatula"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     db_xref="taxon:3880"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cultivar="Jemalong"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          75.8%;
83.3%;
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             Genome Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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.Pred. No. 1.2e+03;
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ACCESSION
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BZ324410/c
                                                                FEATURES
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600 bp DNA linear Gi ic09c08.gl WGS-ZmaysF (JM107 adapted methyl filtered) genomic clone ic09c08 5', genomic survey sequence.
BZ324410
                                                                                                                                                                                                                                                                                                                                      1 (bases 1 to 600)
Rabinowicz, P. D., O'Shaughnessy, A.L., Balija, V.,
Katzenburger, F., King, L., Miller, B., Muller, S.,
Zutavern, T., McCombie, W.R. and Martienssen, R.A.
Genomic shotgun sequences from Zea mays (methyl-
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zea mays
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                                                                                                                                 Lita Annenberg Hazen Genome Sequencing Center Cold Spring Harbor Laboratory PO Box 100, Cold Spring Harbor, NY 11724, USA
                                                                                                                                                                                                                                                                                                      Unpublished
Contact: W. Richard McCombie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: mccombie@cshl.org
Plate: ic09 row: c column:
Seq primer: -21M13UnivFwd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
Tel: 516 367 8884
Fax: 516 367 8874
                                                                                                                          Seq primer: -21M13UnivRev
                                                                                                                                                   Email: mccombie@cshl.org
Plate: ic09 row: c column:
                                                                                                                                                                                             Tel: 516 367 8884 Fax: 516 367 8874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zea mays
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                                                              quality sequence stop: 613.
Location/Qualifiers
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                                                                                                        shotgun
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/clone lib="WGS-ZmaysF (JM107 adapted methyl filtered)"
/clone lib="WGS-ZmaysF (JM107 adapted methyl filtered)"
/note="Organ: immature ears; Site_1: Xba I; Site_2: Xba I;
The vector was digested with XbaI and one nucleotide was added by fill in in the recessive 3' end. The genomic DNA was nebulized, end repaired, adaptor ligated and size fractionated using sephadex. The resulting fragments were between 0.8 and 3 kb and were cloned into the vector (.x/y reads in M13mpl9, .b/g reads in pUC19). The same ligation was transformed in either JM107 or DH5a. "
a 102 c 134 g 188 t 1 others
/organism="Zea mays"
/mol_type="genomic DNA"
                                            1. .600
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cultivar="B73"
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87.0%;
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Pred. No. 1.2e
0; Mismatches
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••
                                                                                                                                                                                                                                                                                                                                               (methyl-filtered)
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Nascimento, L.,
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1) Zea mays
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REFERENCE
AUTHORS
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AQ305217/c
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VERSION
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ORIGIN
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PUBMED
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Query Match
Best Local Similarity
Matches 20; Conserv
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                                                                                                                                                                                                                                                                                 source
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608 bp DNA linear GSS 16-DEC-1998
HS_2019_A2_D07_T7 CIT Approved Human Genomic Sperm Library D Homo
sapiens genomic clone Plate=2019 Col=14 Row=G, genomic survey
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                                                                                                                                                                                                                                                                                                                                              Sequence Tagged Plate: 2019 row Class: BAC ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Mahairas GG, Wallace JC, Hood
High Throughput Sequencing Center
University of Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence-tagged connectors: A sequence approach to mapping and scanning the human genome Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9739-9744 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 (bases 1 to 608)
Mahairas,G.G., Wallace,J.C., Smith,K., Swartzell,S.,
Keller,A., Shaker,R., Furlong,J., Young,J., Zhao,S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                      High quality sequence stop: 608. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                         401 Queen Anne Avenue North, Seattle, WA 98109, USA
Tel: (206) 616-3618
Fax: (206) 616-3887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10449764
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
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  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                        jwallace@u.washington.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone lib="WGS-ZmaysF (JM107 adapted methyl filtered)"
/notes="Organ: immature ears; Site_1: Xba I; Site_2: Xba I;
The vector was dispested with XbaI and one nucleotide was added by fill in in the recessive 3' end. The genomic DNA was nebulized, end repaired, adaptor ligated and size fractionated using sephadex. The resulting fragments were between 0.8 and 3 kb and were cloned into the vector (.x/y reads in M13mpl9. b/g reads in pUC19). The same ligation was transformed in either JM107 or DH5a. "

135 c 102 g 176 t
                                                                                                                                                                                                                                                                                                                                                                                 Tagged Connector
                                                                                              /clone_lib="CIT Approved Human Genomic /note="Organ: sperm; Vector: pBeloBAC11 E-Coli DH10B" 136 g 140 t 14 othe
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/clone="ic09c08"
                                                                                                                                                                                                                     organism="Homo sapiens"

/do_xref="taxon:9606"

/db_xref="taxon:9606"
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                                                                                                                                                                                 'sex="male"
                                                                                                                                                                                                      clone="Plate=2019 Col=14 Row=G"
                  75.8%;
87.0%;
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Score 18.2; DB 28
Pred. No. 1.2e+03;
0; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                   column: 14
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Pred. No. 1.2e+03;
                                       DB 28;
                                                                                                                                       an Genomic Sperm Library pBeloBAC11; BAC Clones
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  Indels
                                     Length 608;
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Adams,M.D.
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Gaps
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KEYWORDS

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RESULT 10
BH022001
LOCUS
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CA781659
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031G11AF Infected Arabidopsis
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Clemson University
100 Jordan Hall, Clemson, SC 29634, US
Tel: 864 656 7288
Fax: 864 656 4293
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Development of Genomic Resources for Cotton (Gossypium hirsul Development of Construction, Preliminary STC Analysis, and Identification of Clones Associated With Fiber Development
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1 (bases 1 to 609)
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Gossypium hirsutum (upland cotton)
Arabidopsis thaliana (thale Arabidopsis thaliana
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High quality sequence stop: 230.
Location/Qualifiers
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Seq primer: TAATACGACTCACTATAGGG
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                                                                                                                                                                                                                                                                                                                                                                        /clone lib="Gossypium hirsutum L."
/note="Vector: pCUGIBAC-1; Site_1: HindIII; Site_2: NotI;
For more details on library preparation, ordering clones
and sequence analysis see
http://www.genome.clemson.edu/projects/stc/cotton/GH_MBb "
156 c 81 g 220 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mol_type="genomic DNA"
/cultivar="Maxxa"
/db_xref="taxon:3635"
/clone="GH_MBb0001P10f"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="Young leaves"
/lab_host="E. coli"
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87.0%;
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Pred. No. 1.2e+03
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                    cress)
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid
; eurosids II; Brassicales; Brassicaceae; Brassica.
1 (bases 1 to 741)
Town, C.D., Van Aken, S., Utterback, T., Koo, H. and Fraser, C.M.
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BONFA77TF BO_1.6_2_KB_tot
genomic survey sequence.
BZ506781
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Contact: Karen G. Welinder
Institut for bioteknologi
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1 (bases 1 to 737)

Lundsgaard, M., Emmersen, J., Nielsen, K.L., Wilson, I., Somerville, S. and Welinder, K.G.

EST sequencing of Erysiphe cichoracearum infected Arabidopsis
                                                                                                                                                                                                                                                                     Whole genome shotgun sequencing of Brassica oleracea Unpublished
                                                                                                   Class: sheared ends.
                                                                                                                                                                                                                                       Contact: Chris Town
                                                                                                                                                                                                                                                       Other_GSSs: BONFA77TR
                                                                                                                                                                                                                                                                                                                                                                                                              Brassica oleracea
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Fax: +45 98141808
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Sohngaardsholmsvej
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                                                                                                                                 il: cdtown@tigr.org
is from a doubled haploid
                                                                                                                 primer:
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                                                                                                                                                                                  Medical Center Drive,
                                                                                                                                                                    301-838-0208
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /dev_stage="plant 3 weeks old, three days post infection" /clone lib="Infected Arabidopsis Leaf" /note="Organ: Leaf; Vector: Beluescrit; Mixed cDNA library of Arabidopsis and E. cichoracearum infected leaf from three weeks old Arabidopsis plants. Plants were harvested 3 days after infection and mRNA oligo dT
              /organism="Brassica oleracea"
/mol_type="genomic DNA"
/strain="TO1000DH3"
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sequence.
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                        AQ862478 B15 bp. DNA nbeb0019A21f CUGI Rice BAC Library (EcoRI) (cultivar-group) genomic clone nbeb0019A21f,
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Tel: 301-838-5843
Fax: 301-838-0208
Email: whitelaw@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poalee; Poaceae; PACCAD clade; Panicoldeae; Andropogoneae; Zea.

1 (Dases 1 to 799)

Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T., Resnick, A., Fraser, C.M., Yuan, Y., San Miguel, P., Ma, J. and Bennetzen, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PUGFY17TD ZM_0.6_1.0_KB Zea mays genomic clone genomic survey sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Maize Genomics Consortium
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/clone="BONFA77"
/clone_11b="BO_1.6 2 KB tot"
/clone="Yector: pHOS1; SIte 1: B.
/note="Vector: pHOS1; SIte 1: B.
total DNA inserted into pHOS1 u.
a 122 c 115 g 231 t
                                                                                                                                                                                                                                                                              /clone="ZMMBTa375D09"
/clone_lib="ZM_0.6_1.0_KB"
/clone_lib="ZM_0.6_1.0_KB"
/note="Vector: pCR4-TOPO; Site_1:
/note="Vector: pCR4-TOPO; Site_1:
COT selected genomic DNA library"
142 c 181 g 261 t
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/mol_type="genomic DNA"
/strain="B73"
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                                          linear GSS 03-NOV-19
Oryza sativa (japonica
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Oryza sativa (japonica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
BZ576392 1661
mgh2_4912.y2 msh Pseudomonas
genomic survey sequence.
BZ576392
BZ576392.1 GI:27211453
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100 Jordan Hall, C
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Class: BAC ends
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (bases 1 to 815)
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864 656 4293
1: rwing@clemson.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      quality sequence start: 46 quality sequence stop: 279.
                                                                                                                                                                                                                                                                                                                                                                                                                                       //AD__NUMBER B. COLL DRIVE
//Clone lib="CUGIR Rice BAC Library (ECORI)"
//Clone lib="CUGIR Rice BAC Library (ECORI); Site 2: ECORI;
//note="Vector: pBACINdigo; Site 1: ECORI; Site 2: ECORI;
// Rice is the most important food crop in the world. Half of
the world population, especially those inhabiting highly
populated areas of the humid tropics and subtropics, rely
on rice as their primary source of carbohydrate.

Monocotyledonous rice is a diploid plant (2n=24) with a
haploid genome equivalent of 431 Mbp (Arumuganathan and
Earle, 1991). The relatively small genome of rice, three
times larger than that of Arabidopsis, makes it suitable
for genomic studies. In order to facilitate positional
cloning, physical mapping and genome sequencing of rice,
we have constructed a BAC library from Oryza sativa,
Nipponbare variety using ECORI as the cloning enzyme. The
library contains 55,296 clones with an average insert size
of 121 Kb providing approximatley 15 haploid genome
equivalents. The deep coverage allows the isolation a
particular sequence with a probability of 99,9%. Three
high density filters, each containing 18,432 clones
(doubly spotted), represent the whole library for colony
screening and can be requested from the Clemson university
BAC/EST Resource Center (www.genome.clemson.edu)."

11.5 a 213 c 84 g 298 t 5 others
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/mol_type="genomic DNA"
/strain="Japonica"
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'clone="nbeb0019A21f"
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Pred. No. 1.4e+03;
0; Mismatches 3;
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656 ATCATCCTCTCCTACTTCTCGAC 678
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Spencer,D.H., Raymond,C.K., Smith,E.E., Sims,E.E., Hastings,M.,
Burns,J.L., Kaul,R. and Olsen,M.V.
                                                                                                                                                                                                                                                                                                                                                          Tel: 2062216954
Fax: 2066857244
                                                                                                                                                                                                                                                                                                                                                                                                                                      J. Bacteriol., (2002) In press
Contact: Chris K. Raymond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Whole-Genome-Sequence variation among multiple isolates of Psedomonas aeruginosa library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                            Class: shotgun
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Box 352145, Seattle, WA 98105-2145, USA
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                                                                                                                                             library."
434 c
                                                                                                                                                                                              /db_xref="taxon:287"
/clone="msh2_4912"
/clone_lib="msh"
                                                                                                                                                                                                                                           /mol_type="genomic DNA"
/strain="MSH"
                                                                                                                                                                                                                                                                                                         location/Qualifiers
                                                                                                                                                                                                                                                                           organism="Pseudomonas aeruginosa"
                                                                                                                                                                             note="Environmental isolate. Whole genomic shotgun
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87.0%;
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Pred. No. 1.9e+03;
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Search completed: February 16, 2004, 13:40:58 Job time : 97.2277 secs

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Minimum DB seq length: 0
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Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Sequence 5
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Ayal-Hershkovitz,M., Pecker,I. and Yacoby-2
Genetically modified cells and methods for
heparanase and methods of purifying same
Patent: US 6426209-A 5 30-JUL-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (bases 1 to 24)
Ayal-Hershkovitz,M., Moskowitz,H., Miron,D., Gilboa,A., Mimon,M.,
Ben-Artzi,H., Yacoby-Zeevi,O., Pecker,I., Peleg,Y. and Schlomi,Y.
Genetically modified cells and methods for expressing recombinant heparanase and methods of purifying same
Patent: US 6348344-A 5 19-FEB-2002;
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Pred. No. 0.56;
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Pecker, I., Vlodavsky, I., Friedman, Y
Heparanase specific molecular proben
medical applications
Patent: US 6531129-A 5 11-MAR-2003;
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Ayal-Hershkovitz,M., Moskowitz,H., Miron,D., Gilboa,A., Mimon,M.,
Ben-Artzi,H., Yacoby-Zeevi,O., Pecker,I., Peleg,Y. and Shlomi,Y.
Genetically modified cells and methods for expressing recombinant
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Sequence 3 from Patent WO0066755.
AX044387
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Patent: WO 0066755-A 5 09-NOV-2000;
Plant Bioscience Limited (GB)
Location/Qualifiers
        Pesticidal fusions
Patent: WO 0066755-A 3 09-NOV-2000;
Plant Bioscience Limited (GB)
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Sequence 4 from Patent WO0066755.
AX044388
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                                                    Christou, P. and Mehlo, L.
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Bioscience Limited (GB)
Location/Qualifiers
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/mol type="genomic DNA"
/mb xref="taxon:32630"
/note="Nucleotide sequence of RTB2 in pFASTBAC1"
165 c 200 g 240 t
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="Nucleotide sequence of RTB3 in pFASTBAC1"
121 c 134 g 169 t
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AX188665/c
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Patent: WO 0066755-A 1 09-NOV-2000;
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Sequence 1 from Patent WO0066755.
AX044385
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Placobdella papillifera
Eukaryota; Metazoa; Annelida; Clitellata, Hirudinida; Hirudinea;
Rhynchobdellida; Glossiphoniidae; Placobdella.
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AX188665
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                                                                                                                                                                        artificial sequences.
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                                                                                                       Bioscience Limited (GB)
            /note="Nucleotide sequence of CryIA(b) 552 c 440 g 532 t
                                                                              1. .2062
                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Placobdella papillifera"
|mol type="genomic DNA"
|/db_xref="taxon:168682"
| 296 c 296 g 419 t
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
                                      /mol_type="genomic DNA"
/db_xref="taxon:32630"
                                                               organism="synthetic construct"
                                                                                        Location/Qualifiers
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Sequence 8 from Patent WO0066755.
AX044392
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Patent: WO 0066755-A 8 09-NOV-2000;
Plant Bioscience Limited (GB)
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Plant Bioscience Limited (GB)
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AX044386
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
/note="Nucleotide sequence of CryIA(b)-RTB3
/note="Nucleotide sequence of CryIA(b)-RTB3
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/noTe="Nucleotide sequence of CryIA(c)
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AX044391/c
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AX044394 2692 bp
Sequence 10 from Patent WO0066755.
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Patent: WO 0066755-A 7 09-NOV-2000;
Plant Bloscience Limited (GB)
Location/Qualifiers
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Sequence 7 from Patent WO0066755.
AX044391
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Patent: WO 0066755-A 11 09-NOV-2000;
Plant Bioscience Limited (GB)
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ilarity 100.0%;
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/mol_type="gentomic DNA"
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/nbTe="Nuclectide sequence of CryIA(b)-RTB2 in pFASTBAC1"
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/note="Nucleotide sequence of CryIA(c)-RTB3
597 c 527 g 652 t
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Pred. No. 0.55;
Mismatches
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ACCESSION
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source
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AUTHORS
TITLE
JOURNAL
Search completed: February 16, 2004, 11:43:02 Job time : 117.587 secs
                                                                              В
                                                                                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                      Query Match 100.0%; Score 24; DB 6; Length 2692; Best Local Similarity 100.0%; Pred. No. 0.55; Matches 24; Conservative 0; Mismatches 0; Indels (
                                                                              2687 TATGATCCTCTAGTACTTCTCGAC 2664
                                                                                                  1 TATGATCCTCTAGTACTTCTCGAC 24
                                                                                                                                                                                                                                                                                                                                                 Christou, P. and Mehlo, L.

Pesticidal fusions
Patent: WO 0066755-A 10 09-NOV-2000,
Plant Bioscience Limited (GB)
Location/Qualifiers
1. .2692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  synthetic construct
synthetic construct
artificial sequences.
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AX044394.1 GI:11343272
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/mol type="genomic DNA"
/mol type="genomic DNA"
/db_xref="reaxon:32630"
/note="Nucleotide sequence of CryIA(c)-RTB2 in pFASTBAC1"
/note="Nucleotide sequence of CryIA(c)-RTB2 in pFASTBAC1"
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Database
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Maximum Match 100%
Listing first 45 summaries
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seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N_Geneseq_19Jun03:*

1: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*

2: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*

3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*

4: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*

5: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1984.DAT:*

5: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1985.DAT:*

6: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1986.DAT:*

9: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1988.DAT:*

10: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1988.DAT:*
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: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1987, DAT: *
:/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1980, DAT: *
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:/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1990, DAT: *
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:/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1992, DAT: *
:/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1994, DAT: *
:/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1994, DAT: *
:/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1997, DAT: *
:/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1997, DAT: *
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

SUMMARIES

7 19. 8 19.	4 19.6 5 19.6	ω ω	1 26	Regult No. Score
	.6 75.4 .6 75.4	26 100.0 20 76.9	,	
	474 605		26	Query Match Length DB
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	Primer specific fo Human heparanase g	Human heparanase Human heparanase	Human heparanase	Description

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18	18	18	18	18	18	18	18	18	18	18		18.2		18.2		18.4	18.6	18.6	18.6	18.6	18.6	19			19.6	•	•	•		19.6	•			19.6	19.6	19.6
69.2				69.2						69.2	70.0	70.0	70.0	70.0	70.0	•	71.5	71.5	71.5	71.5	71.5			•	•	•	•	•	٠	•	75.4		5	•	75.4	75.4
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24	2	25	24	24	25	21	21	24	20	19	24	24	24	24	24	23	24	20	22	25	21	25	24	24	21	20	21	20	22	20	22	22	21	21	21	20
ABQ70896	A8209890	ABX72051	ABL92126	ABL40753	ABX31423	AAX82894	AAA36803	ABN40291	AAZ30938	AAV71120	AAL42628	AAL42629	AAK99773	AAK99760	AAL42627	AAS84301	ABS99038	AAX13243	AAF61716	ABT16043	AAZ39200	ABZ22816	ABN90553	ABN90554	AAA75080	AAX86671	AAA75053	AAX35650	AAH20940	AAX37260	AAF93788	AAA91112 .	AAZ33290	AAZ39195	AAA75051	AAX35648
Listeria monocytog	Human 5' and/or re	ีก		Chicken signal pep	Human GDP-mannose	Human dysferlin DN	Human dysferlin re	Human spliced tran	Thermus thermophil	PCR primer used to	Coffee theobromine	Coffee theobromine	1302nt RNA encodin		Coffee theobromine	DNA encoding novel	Enterococcus faeca	Enterococcus faeca	Human CTAGE-2 enco	NOVX related polyn	Human heparanase P	Human heparanase e	Staphylococcus epi	Staphylococcus epi	Nucleotide sequenc	cDNA encoding a hu	ğ	cDNA encoding a hu	Human heparanase i	Seg ID No: 14 of W	Human cDNA encodin	Human heparanase,	Human heparanase n	Human heparanase e	þ	cDNA encoding a hu

ALIGNMENTS

Human; heparanase; hpa; genetic modification; expression; anticancer; angiogenesis; anti-angiogenic; antiproliferative; antiviral; antitumour; anti-atherosclerotic; anti-inflammatory; antineurodegeneration; heparan sulphate; heparin-binding growth factor; tumour angiogenesis; metastasis; wound healing; restenosis; atherosclerosis; inflammation; neurodegeneration; viral infection; cystic fibrosis; cancer; diagnosis; 01-MAY-1998; 02-MAR-1999; Synthetic. Human heparanase PCR sense primer SEQ ID NO:4. AAZ39196; AAZ39196 standard; DNA; 26 BP 11-NOV-1999 WO9957244-A1. Homo micrometastasis; autoimmune 02-MAR-2000 (first entry) 29-APR-1999; (INSI-) INSIGHT STRATEGY & MARKETING LTD sapiens. 98US-0071618. 99US-0260038. 99WO-US09256. infection; cystic me lesion; kidney

(FRIE/) FRIEDMAN M

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RESULT 2
AAZ33291
ID AAZ3
XX AAZ3
XX AAZ3
XX Huma
XX 29-1
XX 29-1
XX 29-1
XX 29-1
XX 11-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes genetically modified cells (A) containing CC a polynucleotide (I) that encodes a polyneptide with heparanase activity, CC and express recombinant heparanase (II). Heparanase cleaves heparan CC sulphate (HS) at specific intrachain sites, resulting in release of the parin-binding growth factors, enzymes and proteins that are sequestered CC by HS in basement membranes, extracellular matrix or cell surfaces. It CC may also be implicated in tumour angiogenesis and metastases. (II) is CC restensis, atheroscletosis, inflammation, neurodegeneration, viral CC infection and cystic fibrosis. It can also be used to neutralise heparin CC (an alternative to protamine) and to screen for specific inhibitors CC (potentially useful for treating cancer and metastases). Antibodies CC raised against (II) are used for immunodetection and diagnosis of CC micrometastases, autoimmune lesions and kidney failure. (A) provide (II) CC in large quantities, in a form that is homogeneously processed and activated/neutralised by a dedicated protease. The present sequence represents a PCR primer for human heparanase, which is used in an CC example from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              metastasis; adenocarcinoma; squamous cell carcinoma; teratocarcinoma; mesothelioma; melanoma; lymphoma; leukemia; cancer; sepsis; diabetes; inflammation; haemorrhagic nephritis; nephrotic syndrome; inflammation; haemorrhagic nephritis; nephrotic syndrome;
(INSI-) INSIGHT STRATEGY & MARKETING LTD. (HADA-) HADASIT MEDICAL RES SERVICES & DEV
                                                                                                                          01-MAY-1998;
                                                                                                                                                                                    29-APR-1999;
                                                                                                                                                                                                                                                                                                                 WO9957153-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antidiabetic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; heparanase; hpa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human heparanase PCR sense primer SEQ ID NO:4.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nase; hpa; diagnosis; therapy; tumour; cytostatic; immunomodulatory; anti-inflammatory; nephrotropic;
                                                                                                                          98US-0071739.
                                                                                                                                                                                       99WO-US09255
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Pred. No. 0.045;
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RESULT 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                          Human; heparanase; cytostatic; vasotropic; antidiabetic; anti-HIV; ophthalmological; antirheumatic; antiarthritic; antipportatic; antianaemic; neuroprotective; notropic; cerebroprotective; antibacterial; virucide; protozoacide; fungicide; antiinflammatory; antibacterial; virucide; protozoacide; fungicide; antiinflammatory; cardiant; immunosuppressive; tumour metastasis; inflammatory disease; allograft rejection; cell migration; angiogenesis; basement membrane; extracellular matrix; cancer; ischaemia; diabetic retinopathy; extracellular matrix; cancer; ischaemia; psoriasis; HIV infection; sickle cell anaemia; Alzheimer's disease; muscular dystrophy; neurodegenerative disease; vascular disease; cardiovascular disease; cystic fibrosis; stroke; gene therapy; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tumours, (adeno) carcinoma, squamous cell carcinoma, teratocarcinoma, mesothelioma, melanoma, lymphoma or leukemia, a solid cancer (or its metastases) derived from liver, prostate, bladder, breast, ovary, cervix, colon, skin, intestine, stomach, uterus and pancreas, kidney disease, diabetes and inflammation, haemorrhagic nephritis, nephrotic syndrome, sepsis and inflammatory or autoimmune disease), for targeted drug delivery (e.g. of anticancer agents) and as research reagents. The present sequence represents a PCR primer for human heparanase, which is best an example from the present invention for the construction of a bear an example from the present invention for the construction of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of heparanase, for diagnosis and monitoring or diseases (e.g. metastasis), for treatment of heparanase-associated diseases (e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes heparanase-specific molecular probes, useful for methods of detecting heparanase in situ. The probes and anti-heparanase antibodies are used to detect or quantify the expression of heparanase, for diagnosis and monitoring of diseases (especially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-SEP-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABN86005 standard; DNA; 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 26 BP; 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a neparanase
                                                                        30-NOV-2000;
                                                                                                             30-NOV-2001; 2001WO-US44798
                                                                                                                                                  06-JUN-2002.
                                                                                                                                                                                       WO200244353-A2
                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Heparanase-specific molecular probes useful treatment, e.g. of tumors, and for targeted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-052944/04.
                                 (SANG-) SANGAMO BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (FRIE/) FRIEDMAN M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CGCATATGCAGGACGTCGTGGACCTG 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 27; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vlodavsky I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                        2000US-250690P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         expression vector.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          specific primer HP-6.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΒP
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Pred. No. 0.045;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for diagnosis and drug delivery -
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Wolffe AP,

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RESULT 4
AAF93984
AAF9
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AAF9
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AAF9
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AAF9
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PFF 07
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PR 07
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Best Local
                                                                               08-JUL-1999;
11-JAN-2000;
02-MAY-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diseases, vascular disease, cardiovascular disease, cystic fibrosis, stroke, and bacterial, protozoal, fungal and viral infection. Constructs of the invention may also be useful in gene therapy. The current sequence represents a human heparanase gene specific primer designated HP-6. This was used in the determination of nucleotide sequences in the human
                  Ota T,
                                                                                                                                              07-JUL-2000; 2000EP-0114090
                                                                                                                                                                                                           EP1067182-A2
                                                                                                                                                                                                                                                                       Human; secretory protein; membrane protein;
rheumatoid arthritis; diabetes; PCR primer;
                                                                                                                                                                                                                                                                                                                   Primer specific for DNA encoding secretory/membrane protein SEQ ID
                                                                                                                                                                                                                                                                                                                                                      23-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                       AAF93984;
                                                                                                                                                                                                                                                                                                                                                                                                                    AAF93984 standard; DNA; 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           heparanase gene and flanking regions.
                                                (HELI-) HELIX RES
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                Isogai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCAGGACGTCGTGGACCTG 26
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                               2000JP-0118775
2000JP-0183766
                                                                                                                                                                                                                                                                                                                                                     (first entry)
                H
                                                                                                              99JP-0194179
                                                   INST
                Nishikawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               76.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 20;
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                  'n
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                  Kawai
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                Sugiyama
                                                                                                                                                                                                                                                                                       vaccine;
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                'n
                                                                                                                                                                                                                                                                                       gene therapy
                  Hayashi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                          418
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片 S

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diagnostic of diseases associated with inappropriate secretory grotein/membrane protein expression. The nucleic acids and complementary sequences may also be used as DNA probes in diagnostic assays (e.g. polymerase chain reactions (PCR)) to detect and quantitate the presence of similar nucleic acid sequences in samples. They may also be used to study the expression and function of secretory proteins/membrane polypeptides and their role in metabolism. The polypeptides may be used as antigens in the production of antibodies against them and in assays to identify modulators (agonists and antagonists) of expression and activity. The antibodies and antagonists may also be used as diagnostic agents for detecting the presence of the polypeptides in samples (e.g. by enzyme linked immunosorbant assay (ELISA). Examples of diseases which may be treated include rheumatoid
  Matches
                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                         which encode human secretory or membrane proteins represented by AAB88317 - AAB88419. Included in the invention are primers AAF932917 - AAF93295 and AAF62232 - AAF62235 which are used to isolate to cDNA sequences of the invention. The invention also includes methods for the production of antibodies directed against the proteins, and cDNA sequences, which can be used in vaccines. The polynucleotide sequences can be used in gene therapy. The polynucleotide sequences and the proteins they encode may be used in the prevention, treatment and discount of discount and the proteins they encode may be used in the prevention, treatment and
                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nucleic acids encoding secretory proteins/membrane proteins, useful in gene therapy or as candidate target molecules in drug development -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 4; SEQ ID 418; 609pp + CD ROM; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-093989/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This invention relates to nucleic acid sequences AAF93744 - AAF93916
                      Similarity
                                                                                       474
                                                                                                                                and
  Conservative
                                                                                       BP;
                                                                                                                                  diabetes.
                                                                                       86 A; 154 C; 127 G; 101
                  75.4%;
84.6%;
0,
                      Score 19.6;
Pred. No. 3
  Mismatches
                                                                                       T; 6 other;
                                           DB
                                           22;
4.
                                         Length
  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   used to isolate the
                                           474;
0,
  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
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described as, cytostatic, vasotropic, antidiabetic, anti-HIV, ophthalmological, antirheumatic, antiarthritic, antipsoriatic,

The invention relates to movel heparanase sequences, particularly nove sequences from the regulatory regions upstream and downstream of the coding region. The activity of polynucleotides of the invention may be

particularly novel ownstream of the

Example 1; Page 44; 72pp; English.

New heparanase polynucleotide, useful for controlling disease states such as tumour metastasis, inflammatory diseases and allograft rejection

2002-527708/56

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ABN86000
                                                                                                                                                                                                                                                                                                                                 cardiant; immunosuppressive; tumour metastasis; inflammatory disease; allograft rejection; cell migration; angiogenesis; basement membrane; extracellular matrix; cancer; ischaemia; diabetic retinopathy; macular degeneration; rheumatoid arthritis; psoriasis; HIV infection; sickle cell anaemia; Alzheimer's disease; muscular dystrophy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; heparanase; cytostatic; vasotropic; antidiabetic; anti-lophthalmological; antirheumatic; antiarthritic; antipsoriatic; antianaemic; neuroprotective; nootropic; cerebroprotective; antibacterial; virucide; protozoacide; fungicide; antiinflammatibacterial; virucide; protozoacide;
                                                                                                                                                                                                                                                                               neurodegenerative disease; vascular disease; cardiovascular
cystic fibrosis; stroke; gene therapy; chromosome 4; gene; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human heparanase gene fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-SEP-2002
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                                                                                                                                                                                                       sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161 CGCAAGCACAGGACGTCGTGGACCTG 186
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
/product= "heparanase protein fragment"
/note= "contains 2 introns; one full in
                                                                                                                                       Location/Qualifiers
                                                                /*tag= a
                                                                                                                                                                                                                                                                        chromosome 4; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antiinflammatory;
       intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              anti-HIV;
                                                                                                                                                                                                                                                                                                                      disease;
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                                                                                                                      Query Match
Best Local
                                                                                                                                                                                     antianaemic, neuroprotective, nootropic, cerebroprotective, antianaemic, neuroprotective, nootropic, cardiant and immunosuppressive. Modulating expression of heparanase gene using constructs of the invention is useful for facilitating targeted control of disease states such as tumour metastasis, inflammatory diseases, allograft rejection, and for inhibiting processes such as cell migration, angiogenesis, and degradation of the basement membrane and/or extracellular matrix. Heparanase-targeted DNA binding domains modulates gene expression, and are useful for therapeutic or prophylactic applications, for e.g. cancer, ischaemia, diabetic retinopathy, macular degeneration, rheumatoid arthritis, psoriasis, HIV infection, sickle cell anaemia, Alzheimer's disease, cardiovascular disease, cystic fibrosis, stroke, and bacterial, protozoal, fungal and viral infection. Constructs of the invention may also be useful in gene therany. The current semence of the invention may also be useful in gene therany.
                                                                                                                                                        stroke, and bacterial, provident, constitution may also be useful in gene therapy.

of the invention may also be useful in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                        sequences from the regulatory regions upstream and downstream of the coding region. The activity of polynucleotides of the invention may described as, cycostatic, vasotropic, antidiabetic, anti-HIV, ophthalmological, antirheumatic, antiarthritic, antipsoriatic,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    exon
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                                                                                                                    Sequence
                                                                                                                                                 represents a human chromosome 4.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wolffe AP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-NOV-2000; 2000US-250690P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 heparanase polynucleotide, useful for controlling disease states
n as tumour metastasis, inflammatory diseases and allograft rejection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      invention relates to novel heparanase sequences, particularly novel
 468 CGCAAGCACAGGACGTCGTGGACCTG
                    1 CGCATATGCAGGACGTCGTGGACCTG 26
                                                          22;
                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Fig 1; 72pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SANGAMO BIOSCIENCES INC
                                                                                                                      605
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6
                                                        Conservative
                                                                                                                      BP;
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/note= "start (
603..605
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340..602
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106..339
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/number= 2
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                                                                                                                    ð
                                                                     75.4%;
                                                                                                                      187 C; 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English
                                                          0
                                                                     Score 19.6;
Pred. No. 38
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                                                        Mismatches
                                                                                                                      G; 92 T;
493
                                                                          38;
                                                                                     DB 24; Length 605;
                                                                                                                      0
                                                                                                                      other;
                                                          Indels
                                                                                                                                                                The current sequence located on
                                                          0
                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                           bе
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RESULT 6

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1 CGCATATGCAGGACGTCGTGGACCTG 26

Query Match Best Local S Matches 22

22; Similarity

Conservative

0,

Indels Length 1419;

0;

Gaps

0

75.4%;

Sequence 1419 BP; 329 A; 352

C; 452 G; Score 19.6; Pred. No. 4: Mismatches

286 T; 0 other; DB 24; 4.

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diseases, allograft rejection, and for inhibiting processes such as cell migration, angiogenesis, and degradation of the basement membrane and/or extracellular matrix. Heparanase-targeted DNA binding domains modulates gene expression, and are useful for therapeutic or prophylactic applications, for e.g. cancer, ischaemia, diabetic retinopathy, macular degeneration, rheumatoid arthritis, psoriasis, HIV infection, sickle cell anaemia, Alzheimer's disease, muscular dystrophy, neurodegenerative diseases, vascular disease, cystic fibrosis, stroke, and bacterial, protozoal, fungal and viral infection. Constructs of the invention may also be useful in gene therapy. The current sequence represents the human heparanase upstream sequence containing exons 1 and
                                                                                                                                                                                                                                                                                                                          sequences from the regulatory regions upstream and downstream of the coding region. The activity of polynucleotides of the invention may be described as, cytostatic, vasotropic, antidiabetic, anti-HIV, ophthalmological, antirheumatic, antiarthritic, antipsoriatic, antianaemic, neuroprotective, nootropic, cerebroprotective, antibacterial, virucide, protozoacide, fungicide, antinflammatory, cardiant and immunosuppressive. Modulating expression of heparanase gene using constructs of the invention is useful for facilitating targeted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ophthalmological; antirheumatic; antiarthritic; antipsoriatic; antianaemic; neuroprotective; nootropic; cerebroprotective; antibacterial; virucide; protozoacide; fungicide; antiinflammatory; cardiant; immunosuppressive; tumour metastasis; inflammatory disease; allograft rejection; cell migration; angiogenesis; basement membrane; extracellular matrix; cancer; ischaemia; diabetic retinopathy; macular degeneration; rheumatoid arthritis; psoriasis; HIV infection; sickle cell anaemia; Alzheimer's disease; muscular dystrophy; neurodegenerative disease; vascular disease; cardiovascular disease; cystic fibrosis; stroke; gene therapy; ds.
                                                                                                                                                                                                                                                                                                       control of disease states such as tumour metastasis, inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New heparanase polynucleotide, useful for controlling disease states such as tumour metastasis, inflammatory diseases and allograft rejection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-NOV-2000; 2000US-250690P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to novel heparanase sequences,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 1; Fig 4; 72pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; heparanase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human heparanase upstream sequence containing exons 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABN86003 standard; DNA; 1419 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (SANG-) SANGAMO BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cytostatic; vasotropic; antidiabetic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               particularly novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          anti-HIV;
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1282 CGCAAGCACAGGACGTCGTGGACCTG 1307

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Query Match
Best Local S
Matches 22
                                                                                                             atherosclerosis, tumour growth and progression, fibroproliferative disorders, and central nervous system (CNS) and neurodegenerative diseases. The products can also be used for detection and diagnosis. I purified heparanase, both recombinantly produced human heparanase and heparanase isolated from human platelet activity, allows for the convenient selection of compounds having anti-heparanase activity, i.e. inhibitors of heparanase activity, by measuring inhibition of heparanase activity can be measured blocking heparanase-mediated release of radioactive fragments from in
                                                                                                                                                                                                                                              This sequence encodes the human pre-proheparanase of the invention. This sequence was isolated from human platelets. The heparanase can be used for identifying agents which alter heparanase activity. The heparanase can be used for wound healing or for blocking angiogenesis or inflammation. It can be used for treating e.g. psoriasis, diabetic retinopathy or solid tumours, or for the degradation of heparin and the neutralisation of heparin's anticoagulant properties during surgery. Inhibitors of heparanase activity can be used in the treatment of arthritis, asthma, and other inflammatory diseases, vascular restenosis, atherosclerosis, tumour growth and progression, fibroproliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; pre-proheparanase; platelet; wound healing; angiogenesis blocker; inflammation, psoriasis; diabetic retinopathy; solid tumour; arthritis; heparin degradation; anticoagulant neutralisation; asthma; CNS disease; inflammatory disease; vascular restenosis; atherosclerosis; diagnosis; tumour growth; fibroproliferative disorder; neurodegenerative disease;
                                                                  Sequence 1593
                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               New isolated platelet heparanase products for, e.g. wound healing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-540598/45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fairbanks MB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (PHAA ) PHARMACIA & UPJOHN CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-MAR-1998;
24-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-SEP-1999.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human pre-proheparanase coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ11236;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ11236 standard; cDNA; 1593 BP.
y Match 75.4%;
Local Similarity 84.6%;
hes 22; Conservative
                                                                                                    radiolabelled (HSPG)/heparin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY34173.
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                                                                                                                                                                                                                                                                                                                                                                                                                               Fig 7; 57pp; English.
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                                                                B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Heinrikson RL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0079401.
98US-0075706.
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1..1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product= pre-proheparanase
                                                                  426 A; 370 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   þ
 Score 19.6; DI
Pred. No. 42;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mildner AM;
                                                                  369
                                                                                                                                                                                                                                                                                                                                                                                                                                                            polypeptides, used to develop and blocking angiogenesis
                                                                  G
                                                                  428 T; 0 other;
                                  DВ
                                20;
 4,
                                Length 1593;
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from in
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RESULT 8
AAX37259
ID AAX3
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                                                          Matches
                                                                                           Query Match
                                                                                                                                                                                                                                               The invention relates to nucleic acid sequences that encode heparanase enzymes having endoglucuronidase activity. Recombinant heparanases are capable of removing the HS side chain from heparan sulfate proteoglycan (HSPG). Sulfated oligosaccharides, sulphonates or HSPG can be used to inhibit heparanase, this is useful for treatment of a physiological or medical condition associated with elevated heparanase activity, such as metastasis, angiogenesis, wound healing, angioplasty-induced restenosis, arteriosclerosis, atherosclerosis and inflammation. The human, murine an
                                                                                                                                                  rat heparanases can be used to enhance wound healing, especially associated with tissue development and repair. The conditions mentioned above can be diagnosed using specific antibodies, and also using primers and probes specific for the heparanase polymucleotides. Other uses of the heparanases include sequencing sulfated molecules such as HSPG. The present sequence represents a DNA encoding human heparanase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Heparanase; endoglucuronidase; heparan sulfate proteoglycan; enzyme; metastasis; angiogenesis; wound healing; angioplasty-induced resteno arteriosclerosis; atherosclerosis; inflammation; tissue development;
                                                                                                                        Sequence 1713 BP; 460 A; 404 C; 406 G; 443 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                           Claim 3; Page 69-73; 112pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-DEC-1997;
28-OCT-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human heparanase enzyme encoding DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAX37259 standard; DNA; 1713
                                                                                                                                                                                                                                                                                                                                                                                                                          heparanases, useful to
                                                                                                                                                                                                                                                                                                                                                                                                                                           Polynucleotides encoding mammalian endoglucuronidases, especially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P-PSDB; AAY17082.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1999-312956/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Freeman CG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human; HSPG; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (AUSU ) UNIV AUSTRALIAN NAT
                                                                            Local
143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     59 CGCAAGCACAGGACGTCGTGGACCTG 84
                                                            l Similarity
22; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCATATGCAGGACGTCGTGGACCTG 26
                 CGCATATGCAGGACGTCGTGGACCTG 26
 CGCAAGCACAGGACGTCGTGGACCTG
                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hamdorf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
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97AU-0000062.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-AU00898
                                                                       75.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BJ, Hulett
                                                                                                                                                                                                                                                                                                                                                                                                                          promote wound healing
                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP
                                                                            Pred. No.
                                                                                         Score 19.6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Parish
                                                                                           DΒ
                                                                                           20;
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                                                            Indels
                                                                                           Length
                                                                                           1713;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               restenosis;
                                                                                                                                                                                                                                                      murine and
                                                             Gaps
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RESULT 9
AAX35648
ID AAX3

AAX35648 standard; cDNA; 1721 BP

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RESULT 10
AAA75051
ID AAA75
XX
AC AAA75
XX
AC AAA75
XX
XX
XX
DT 15-JA
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                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                             The specification describes a polypeptide having heparanase (hpa) activity. The recombinant protein is used as a modulator of heparin-binding growth factors, cellular responses to heparin-binding growth factors and cytokines, cell interaction with plasma lipoproteins, cellular susceptibility to viral, protozoal and bacterial infections or disintegration of neurodegenerative plaques. Heparanase may be useful for conditions such as wound healing, angiogenesis, restenosis, athersclerosis, inflammation, neurodegenerative diseases, and viral infections. Mammalian heparanase antibodies may be applied for immunodetection and diagnosis of micrometastases, autoimmune lesions, and creat failure in biopsy specimens, plasma samples, and body fluids.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Heparanase; hpa; modulator; heparin-binding growth factor; cellular response; cytokine; cell interaction; plasma lipoprotein; cellular susceptibility; infection; disintegration; neurodegenerative plaque; wound healing; anglogenesis; restenosis; athersclerosis; inflammation, neurodegenerative disease; neutralise;
              15-JAN-2001
                                         AAA75051;
                                                                    AAA75051 standard;
                                                                                                                                                                                                                                                         Sequence 1721 BP; 451 A; 413 C; 410 G; 447 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      restenosis, and inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New human polynucleotide useful for treating angiogenesis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-302255/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Feinstein E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-JUL-1998;
02-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9911798-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cDNA encoding a human heparanase protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAX35648;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (FRIE/)
                                                                                                                                                                                                                                                                                      present sequence encodes human heparanase.
                                                                                                                                           160
                                                                                                                                                                                                    22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FRIEDMAN M M.
HADASIT MEDICAL RES SERVICES
INSIGHT STRATEGY & MARKETING
                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY02345.
                                                                                                                                                             CGCATATGCAGGACGTCGTGGACCTG 26
                                                                                                                                           CGCAAGCACAGGACGTCGTGGACCTG 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fig 1; 63pp;
                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
             (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pecker I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0109386.
97US-0922170.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US17954.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     micrometastasis; autoimmune lesion; renal failure;
                                                                     CDNA; 1721
                                                                                                                                                                                                              75.4%;
84.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vlodavsky I;
                                                                                                                                                                                                 Score 19.6; D
Pred. No. 42;
0; Mismatches
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                                                                     ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LTD.
                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                20;
                                                                                                                                                                                                                             Length 1721;
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RESULT 11 AAZ39195

AAZ39195;

AAZ39195 standard; cDNA; 1721

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Matches
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Best Local (
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                                                                                                                                                                                                                                                                   or radiation burns), and in the treatment of angiogenesis, restenosis, atherosclerosis, inflammation, neurodegenerative diseases (Gerstmann-Straussler Syndrome or Creutzfeldt-Jakob disease), and some viral,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New polynucleotides encoding a polypeptide having heparanase activity, useful in wound healing and in gene therapy, particularly in treating tumour, inflammation, autoimmunity, neurodegenerative diseases -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (INSI-)
(HADA-)
(FRIE/)
                                                                                                                                                                                   Sequence 1721 BP; 451 A; 413 C; 410 G; 447 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 9; Fig 1; 152pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     wound healing; infection; burn; angiogenesis; restenosis; atherosclerosis; inflammation; neurodegenerative disease; Gerstmann-Straussler Syndrome; Creutzfeldt-Jakob disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; heparanase; gene therapy; tumour; inflammation; autoimmunity; heparin-binding growth factor; cytokine; neurodegenerative plaque;
                                                                                                                                                                                                                                            bacterial or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P-PSDB; AAB08849
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-FEB-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cDNA encoding a human heparanase polypeptide
                                                                                                      Local Similarity
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                                                                          22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INSIGHT STRATEGY & MARKETING LTD. HADASIT MEDICAL RES SERVICES & DEV. FRIEDMAN M M.
CGCATATGCAGGACGTCGTGGACCTG 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vlodavsky
                                                                          Conservative
                                                                                                                                                                                                                                         protozoa infections.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0258892.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "these nucleotides are likely to be involved
in forming stem and loop structures"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63..1693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        *tag=
                                                                                                75.4%;
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                                                                          0,
                                                                                                   Score 19.6;
Pred. No. 42;
                                                                          Mismatches
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                                                                                                                             21;
                                                                          4,
                                                                            Indels
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02-MAR-2000

(first entry)

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                                                                                                                                                                            The present invention describes genetically modified cells (A) containing CC a polynucleotide (I) that encodes a polynucleotide (I) that encodes a polynucleotide with heparanase activity, cc and express recombinant heparanase (II). Heparanase cleaves heparan CC sulphate (HS) at specific intrachain sites, resulting in release of the parin-binding growth factors, enzymes and proteins that are sequestered CC by HS in basement membranes, extracellular matrix or cell surfaces. It comes also be implicated in tumour angiogenesis and metastases. (II) is constituted in wound healing and for treating angiogenesis, crestensis, it for the protein and cystic fibrosis. It can also be used to neutralise heparin CC (an alternative to protamine) and to screen for specific inhibitors (potentially useful for treating cancer and metastases). Antibodies CC (potentially useful for treating cancer and metastases). Antibodies CC raised against (II) are used for immunodetection and diagnosis of CC micrometastases, autoimmune lesions and kidney failure. (A) provide (II) can large quantities, in a form that is homogeneously processed and CC activated neutralised by a dedicated protease. The present sequence
                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           angiogenesis; anti-angiogenic; antiproliferative; antiviral; antitumour anti-atherosclerotic; anti-inflammatory; antineurodegeneration; heparan sulphate; heparin-binding growth factor; tumour angiogenesis; metastasis; wound healing; restenosis; atherosclerosis; inflammation; neurodegeneration; viral infection; cystic fibrosis; cancer; diagnosis; micrometastasis; autoimmune lesion; kidney failure; ss.
                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Engineered cells that express recombinant heparanase, untherapeutically, e.g. for treating angiogenesis and to specific inhibitors, potential anticancer agents -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ben-Artzi H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAY-1998;
02-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; heparanase; hpa; genetic modification; expression; anticancer; angiogenesis; anti-angiogenic; antiproliferative; antiviral; antitumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-062144/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (FRIE/)
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160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Page 106-107; 118pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FRIEDMAN M M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INSIGHT STRATEGY & MARKETING LTD
                                                                                                                                    1721
CGCAAGCACAGGACGTCGTGGACCTG 185
                   CGCATATGCAGGACGTCGTGGACCTG 26
                                                                   Conservative
                                                                                                                                  вP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ayal-Hershkovitz M,
                                                                                                                                                                  heparanase.
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99US-0260038.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product= "heparanase"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   encoding
                                                                                                                                  451 A; 413 C; 410 G; 447 T; 0 other;
                                                                               75.4%;
84.6%;
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                                                               0
                                                                               Score 19.6;
Pred. No. 42
                                                                 Mismatches
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                                                                                               Length
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RESULT 12
AAZ33290
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Matches
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P-PSDB;
                                                                                                                                                                                                                                                        The present invention describes heparanase-specific molecular probes, useful for methods of detecting heparanase in situ. The probes and anti-heparanase antibodies are detect or quantify the expression of heparanase, for diagnosis and monitoring of diseases (especially metastasis), for treatment of heparanase-associated diseases (e.g. tumours, (adeno) carcinoma, squamous cell carcinoma, teratocarcinoma,
                                                                                                                                                        mesothelioma, melanoma, lymphoma or leukemia, a solid cancer (or its metastases) derived from liver, prostate, bladder, breast, ovary, cervix, colon, skin, intestine, stomach, uterus and pancreas, kidney disease, diabetes and inflammation, haemorrhagic nephritis, nephrotic syndrome, sepsis and inflammatory or autoimmune disease), for targeted drug delivery (e.g. of anticancer agents) and as research reagents. The present sequence encodes human heparanase, which is used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      metastasis; adenocarcinoma; squamous cell carcinoma; teratoc
mesothelioma; melanoma; lymphoma; leukemia; cancer; sepsis;
inflammation; haemorrhagic nephritis; nephrotic syndrome;
autoimmune disease; anticancer; kidney disease; ds.
                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                        Heparanase-specific molecular probes useful for diagnosis treatment, e.g. of tumors, and for targeted drug delivery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-1998;
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                                                                                                                                         The present sequence encodes human hepara exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                              Example;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (INSI-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antidiabetic;
                                                                    Local
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160
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                                                     22;
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                                                                    Similarity
                                                                                                              1721
                                                                                                                                                                                                                                                                                                                                                             Page 82-84; 90pp; English.
CGCAAGCACAGGACGTCGTGGACCTG 185
                          CGCATATGCAGGACGTCGTGGACCTG
                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                              ВP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag=
                                                                                                              451 A; 413 C; 410 G; 447
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                                                                   75.4%;
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                                                     Score 19.6; D
Pred. No. 42;
0; Mismatches
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RESULT 13

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RESULT 14
AAAP93788
ID AAF93
XX AAF93
XX AAF93
XX 23-MAP93
XX 23-MAP93
XX Humar
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XX Homo
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                                                                                                                                                                                                                                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                    This sequence represents a human heparanase coding sequence clone, isolated from an EST clone. The invention relates to heparanase DNA and protein sequences are useful in wound healing, angiogenesis, restenosis, atherosclerosis, inflammation, pulmonary diseases, neurodegenerative diseases (such as Scrape, Alzheimer's disease, and Creutzfeldt-Jakob diseases) or viral infections. The heparanase coding sequence is particularly useful in cinfections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New
 EP1067182-A2
                       Homo sapiens
                                               Human; secretory protein; membrane protein; vaccine; rheumatoid arthritis; diabetes; ss.
                                                                                   Human cDNA encoding a membrane or secretory protein clone PSEC0090
                                                                                                            23-MAY-2001
                                                                                                                                    AAF93788;
                                                                                                                                                          AAF93788 standard; cDNA; 1722
                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; Page 67; 67pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             heparanase, useful in wound protocols for angiogenesis, inflammation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-137930/14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pecker I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-JUN-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Heparanase; hnhp1; wound healing; angiogenesis; restenosis; atherosclerosis; inflammation; pulmonary disease; Alzheimer' neurodegenerrative disease; Crentzfeldt-Jakob disease; viral gene therapy; mouse; expressed sequence tag; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human heparanase,
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                                                                                                                                                                                                                                                                                 госат
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polynucleotides and polypeptides that are distantly homologous aranase, useful in wound healing, as well as in gene therapy tocols for angiogenesis, restenosis, atherosclerosis, or
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                                                                                                                                                                                                                                              \vdash
                                                                                                                                                                                                                                                                    l Similarity
22; Conserv
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                                                                                                                                                                                                                      CGCAAGCACAGGACGTCGTGGACCTG 185
                                                                                                                                                                                                                                            CGCATATGCAGGACGTCGTGGACCTG 26
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                                                                                                                                                                                                                                                                    Conservative
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                                                                                                           (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA; 1721
                                                                                                                                                                                                                                                                             75.4%;
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                                                                                                                                                                                                                                                                    0;
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Pred. No. 42
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                                                                                                                                                                                                                                                                                                                    C; 410
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                                                                                                                                                                                                                                                                                                                   G; 447
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                                                                                                                                                                                                                                                                                           Length 1721;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alzheimer's disease; ase; viral infection;
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                                                           gene therapy;
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08-JUL-1999;
11-JAN-2000;
02-MAY-2000;
                                                                                          protein/membrane protein expression. The nucleic acids and complementary sequences may also be used as DNA probes in diagnostic assays (e.g. polymerase chain reactions (PCR)) to detect and quantitate the presence of similar nucleic acid sequences in samples. They may also be used to study the expression and function of secretory proteins/membrane polypeptides and their role in metabolism. The polypeptides may be used as antigens in the production of antibodies against them and in assays to identify modulators (agonists and antagonists) of expression and activity. The antibodies and antagonists may also be used as therapeutic agents to down regulate expression and activity. The antibodies and antagonists may also be used as diagnostic agents for detecting the presence of the polypeptides in samples (e.g. by enzyme linked immunosorbant assay (ELISA). Examples of diseases which may be treated include rheumatoid
                                                                                                                                                                                                                                                                                                                                                                              which encode human secretory or membrane proteins represented by AAB88317 - AAB88419. Included in the invention are primers AAB88317 - AAF82295 and AAF62232 - AAF62235 which are used to isolate the CDNA sequences of the invention. The invention also includes methods for the production of antibodies directed against the proteins, and cDNA sequences, which can be used in vaccines. The polymucleotide sequences can be used in gene therapy. The polymucleotide sequences and the proteins they encode may be used in the prevention, treatment and sequences are the polymucleotide sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ot a
                                        Sequence
                                                                                                                                                                                                                                                                                                                                                              proteins they encode may be used in the prevention, treatment diagnosis of diseases associated with inappropriate secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleic acids encoding secretory proteins/membrane proteins, useful gene therapy or as candidate target molecules in drug development -
                                                                                arthritis and diabetes.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   invention relates to nucleic acid sequences AAF93744 - AAF93916
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                                        1722 BP;
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2000JP-0183766
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                                        449 A; 414 C;
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                                        412 G;
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                                        447 T;
  BB
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22;
                                        0 other;
Length
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  1722;
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Query Match
75.4%; Score 19.6; DB 22; Length 1722;
Best Local Similarity 84.6%; Pred. No. 42;
Matches 22; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
Qy 1 CGCATATGCAGGTCGTGGACCTG 26

Db 161 ČĠĊĀAGCAĊĀĠĠĀĊĠŦĊĠŦĠĠĀĊĊŦĠ 186 RESULT 15 AAX37260

XX XC AAX37260; XX 21-JUL-1999 (first entry)

AAX37260 standard; DNA; 1723

ВP

Seq ID No: 14 of WO9921975.

KW Heparanase; endoglucuronidase; heparan sulfate proteoglycan; enzyme;
 KW metastasis; angiogenesis; wound healing; angioplasty-induced restenosis;
 KW arteriosclerosis; atherosclerosis; inflammation; tissue development;
 KW human; HSPG; ss.

OS Homo sapiens.

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Search completed: February 16, 2004, 09:18:10 Job time: 13.7569 secs
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                                                                                                                                                                                                                      Matches 22; Conservative
                                                                                                                                                              Query Match 75.4%; Score 19.6; Best Local Similarity 84.6%; Pred. No. 42;
                                                                                                                                                                                                                                                  The invention relates to nucleic acid sequences that encode heparanase enzymes having endoglucuronidase activity. Recombinant heparanases are capable of removing the HS side chain from heparan sulfate proteoglycan (HSPG). Sulfated oligosaccharides, sulphonates or HSPG can be used to inhibit heparanase, this is useful for treatment of a physiological or medical condition associated with elevated heparanase activity, such as metastasis, angiogenesis, wound healing, angioplasty-induced restenosis, arteriosclerosis, atherosclerosis and inflammation. The human, murine and rat heparanases can be used to enhance wound healing, especially associated with tissue development and repair. The conditions mentioned above can be diagnosed using specific antibodies, and also using primers and probes specific for the heparanase polynucleotides. Other uses of the heparanases include sequencing sulfated molecules such as HSPG.
                                                                                                                                                                                                                      Sequence 1723 BP; 461 A; 407 C; 412 G; 443 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polynucleotides encoding mammalian endoglucuronidases, especially heparanases, useful to promote wound healing
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P-PSDB; AAY17083.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-DEC-1997;
28-OCT-1997;
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                                                                         149
                                                                                          1 CGCATATGCAGGACGTCGTGGACCTG 26
                                                                         CGCAAGCACAGGACGTCGTGGACCTG 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hamdorf BJ, Hulett MD,
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97AU-0000062.
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                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Parish CR;
                                                                                                                                                                                  DB 20;
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Result
No.
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM nucleic - nucleic search, using
                                                                                                                                                                                                                                                                                                                              Database
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                                                                                                                                                                                                                                                                                                                                                                           Maximum
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                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                         DB seq
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Match
                                                                                                       22781392 seqs, 12152238056 residues
                                                                                                                                                                                                                                                                                                                                                                                                                            IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
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26
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Maximum Match 100%
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13
CD044218
CB988510
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AL552174
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                                                            SUMMARIES
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CD044218 psHB013xH
CB988510 AGENCOURT
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AL552174 AL552174
                                     Description
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CD044218
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                                                            JOURNAL COMMENT
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Unpublished
Contact: Tyler B
Tyler lab
VBI:
                                                                                                      EST.

Phytophthora sojae

Phytophthora sojae

Phytophthora sojae

Bukaryota; stramenopiles; Oomycetes; Pythiales; Pythiaceae;
                                                                                                                                            CD044218
CD044218.1
                      1880 Pratt Dr., Blacksburg, Tel: 540-231-7318
Email: bmtyler@vt.edu
                                                                                                                                                                 CD044218 677 bp mRNA linear EST 09-MAY-2003 psHB013xH08f_181768 psHB: Infected hypocotyl soybean host. 48 hrs post infection Phytophthora sojae cDNA clone sHB013H08 5, mRNA
PCR PRimers
FORWARD: BK reverse
Plate: 013 row: H
                                                                                1 (bases 1 to 677)
Tyler, B.M., Judelson, H.S., Gijzen, M., Dean, R.A. and Waugh, M.E. USDA-IFAFS: Expression of Phytophthora sojae genes during infe
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CNS0448C
BI754736
BH051472
AZ36831
BJ387056
BJ487056
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AA398146
AA398146
AA398146
AA4750507
AL750507
AL750507
AL750664
AX009557
AC0387662
AA3145
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AA4769475
AI143664
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AA7505064
BY072622
AA811576
AA750977606
BY735903
BB1643910
BF581403
BB16499151
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BF581403
BB16499952
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                                      24061,
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AL273765 Tetracdon
BIT54736 603025450
BH051472 RPCI-24-3
AZ362831 1M0108002
BJ008199 BJ008199
BJ487056 BJ487056
BJ533801 BJ533801
AL533801 Tetracdon
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BG111194 602279842
BC013675 Homo sapi
AA243145 Zs13h05. s
BY000868 BY000868
BY063809 BY063809
AA811576 Cac99h05. s
BY07262 BY072622
AA732339 DR255h04. s
AA769475 NZ31006. s
AA769475 NZ31006. s
AA769475 NZ31006. s
AA769475 NZ31006. s
AA769475 NZ31008. x
BY077606 EST389715
BY332330 NZ95h04. s
AW977606 EST389715
BY33230 TGESTXVd
BI649991 603296650
BF581403 602100804
BI104061 602890362
BC0229952 Homo sapi
BB181339 BB181339
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CB131946 K-EST0182
CB136264 K-EST0188
AZ087080 RPCI-23-2
BU110645 603127747
BE897409 601439313
BM018081 603645645
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REFERENCE
AUTHORS
TITLE
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CB988510
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: cgapbs-remail.nih.gov
Tissue Procurement: Dr. Stefan Hansson
cDNA Library Preparation: Michael J. Brownstein (NHGRI) with help
and advice from Piero Carninci (RIKEN)
and alvice from Piero Carninci (RIKEN)
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (bases 1 to 881)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CB988510 881 bp mRNA linear ES:
AGENCOURT 13905817 NIH MGC 147 Homo sapiens cDNA clone
IMAGE: 30340461 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 ATATGCAGGACGTCGTGGACCTG 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                        High quality sequence stop: 664.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                     Plate: NDAM370 row: f column: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                          found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
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nilarity 91.3%;
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/clone="IMAGE:30340461"
/tissue_type="Human Placenta"
/lab host="DH10B TonA"
/lab host="DH10B TonA"
/clone lib="NIH MGC 147"
/clone lib="NIH MGC 147"
/note="Organ: placenta; Vector: pBluescriptR; Site_1:
all-XhoI; Site_2: BamH; Oligo-dT primed using primer
5'-TTTTTTTTTTTTTTTTTTV.3', size-selected for average
insert size 2.3 kb and normalized to ROT 5. This is a
primary library enriched for full-length clones and
constructed using the Cap-trapper method (Carninci, in
preparation). Library constructed by M. Brownstein
(NIMH/NHGRI, National Institutes of Health). Note: This is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
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244 c 198 g 106 t
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post infection"
                                                                                                                                                                                                                                                                             organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /dev_stage="48 hour post infection"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:67593"
/clone="sHB013H08"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Phytophthora sojae"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tissue type="infected host tissue"
cell_line="P6497"
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Pred. No. 6.3e+02;
0; Mismatches 2;
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AUTHORS
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                                                                                                                                                     l Similarity
22; Conserv
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1 (bages 1 to 924)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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AGENCOURT 8343629 NIH_MGC_110
5', mRNA fequence.
BQ691142
BQ691142 GI:21816458
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High quality sequence stop: 710.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         found through the I.M.A.G.E. Consortium/LLNL http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
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Similarity 84.6%;
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                   CGCATATGCAGGACGTCGTGGACCTG 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCAAGCACAGGACGTCGTGGACCTG 244
                                                                           CGCAAGCACAGGACGTCGTGGACCTG 257
                                                                                                                                                                                                                                                 203
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                                                                                                                                                                                                                                         /note=Torgan: pancreas; Vector: pOTB7; Site 1: XhoI; Site 2: ECORI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/XhoI sites using the following 5 adaptor: GGCAGGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH_MGC Library."
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a 244 c 229 g
                                                                                                                                                                                                                                                                                                                                                                                                                 /clone="IMAGE:6250265"
/tlssue_type="ductal carcinoma, cell line"
/lab host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_110"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Homo sapiens"

mol_type="mRNA"

db_xref="taxon:9606"
                                                                                                                                                                     75.4%;
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Pred. No. 8.2e+02
                                                                                                                                                                       Score 19.6; DB 13
Pred. No. 8.3e+02;
                                                                                                                                                     Mismatches
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                                                                                                                                                                                          Length 924;
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DEFINITION

AL552174 1185 bp AL552174 Homo sapiens PLACENTA COT

mRNA linear EST 31-MAY-200 25-NORMALIZED Homo sapiens cDNA

EST 31-MAY-2003

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ACCESSION
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AL545270
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AL545270 Homo sapiens PLACENTA COT 25-NORWALIZED Homo sapiens cDNA
clone CSODI028YF04 5-PRIME, mRNA sequence.
AL545270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CGCATATGCAGGACGTCGTGGACCTG 26
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cgi-bin/cluster.cgi?seq=CSODIO59CG08QP1&cluster=2469.r. Contact
Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODIO59CG08QP1.
Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Email: seqref@genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r
more information about this cluster, see
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BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
Email: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r For
more information about this cluster, see
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1 (bases 1 to 1185)
Li W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
                                                                                                                                                                                                                       1 (bases 1 to 1201)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
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Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /tissue_type="PLACENTA COT 25-NORMALIZED"
/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="Ist strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and ECOR V
sites of the pCMVSPORT 6 vector. Library was normalized."
a 293 c 293 g 280 t 39 others
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/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CS0DI059YN15"
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Pred. No. 8.9e+02;
0; Mismatches 4
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081G03 of
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cgi-bin/cluster.cgi?seq=CSODI028DC02QP1&cluster=2469.r. Contact :
Feng Liang Email : fllang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODI028DC02QP1.
Location/Qualifiers
scale cione-end sequencing project of the Tetraodon genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon. Location/Qualifiers
                                                                                                                                                                                                                                                                                                    Saurin, W., Bernot, A. and Weissenbach, J. Characterization and repeat analysis of the compact freshwater pufferfish Tetradon nigroviridis Genome Res. 10 (7), 939-949 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Estimate of human gene number provided by genome-wide analysis using Tetraodon nigroviridis DNA sequence Nat. Genet. 25 (2), 235-238 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL273765.1 GI:7996028
GSS; genome survey sequence.
Tetraodon nigroviridis
Tetraodon nigroviridis

    Web: www.genoscope.cns.fr)
    This sequence is a single read and was generated as

                                                                                                                                       Submitted (12-APR-2000) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
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                                                                                                                                                                                       Direct Submission
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/clone_Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="1st strand cDNA was primed with a NotI-ollgo(dT)
/note="1st strand cDNA was primed with a NotI-ollgo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
a 282 c 305 g 279 t 43 others
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nigroviridis genome survey sequence PUC-Ori end of cl
library G from Tetraodon nigroviridis, genomic survey
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/mol_type="mRNA"
/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                Quetier, F.,
                                                                   part of a la
nigroviridis
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                                                      20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM11490 row: C column: 14
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National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
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                                                                                                                                   /note=Torgan: brain; Vector: pCMV-SPORT6; Site_1: Not1; Site_2: BcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27 yo. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.5 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics-tracking code 019. Note: this is a NIH MGC Library."
                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5195845"
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/clone_lib="G"
/note="Genoscope sequence
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|mol_type="genomic DNA"
|db_xref="taxon:99883"
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Pred. No. 9.7e+02;
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BH051472
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Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, M
Tel: 301 838 0200
Fax: 301 838 0208
Email: szhao@rigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    558 ATGCAGGACTTCGTGGACCTG
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AZ362831.1
GSS.
Mus musculus
                                                     AZ362831
613 bp DNA linear GSS 02
1M0108002F Mouse 10kb plasmid UUGCIM library Mus musculus
clone UUGC1M0108002 F, genomic survey sequence.
AZ362831
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Tsegaye, G., Geer, K., Krol, M., Shvartsbeyn, A.,
Russell, D., de Jong, P. and Fraser, C.M.
Mouse BAC End Sequences from Library RPCI-24
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Mammalia; Eutheria; Rodentia;
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musculus (house mouse)
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/note="Vector: pTARBAC1; Site_1: BamH1; Site_2: BamH1;
/note="Vector: pTARBAC1; Site_1: BamH1; Site_2: BamH1;
RPCI-24 Mouse BAC Library produced by Pieter_de Jong. The
library was cloned in the pTARBAC1 cloning vector at the
BamH1 sites using MboI partially digested male C57BL/6J
                                                                                                                                                                                                                                                                                                                                                                                                       DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="genomic DNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
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sex="Male"
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Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly
,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.
and Wright,D.,Weiss,R.
BJ008199
BJ008199.1 GI:17366522
EST.
                                                                              BJ008199 MF01SSA cDNA Oryzias
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Seq primer: CGTTGTAAAACGACGGCCAGT
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Dunn, D., Aoyagi, A.,
                                                           mRNA sequence.
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Insert Length: 10000 Std Erro
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Mammalia; |
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gi|4732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated
                                                                                                                                                                                                                                                                                                                                                                                     with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XLIO-Gold (Stratagene) cells and selected for ampicillin resistance."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="Vector: PWD42nv; Purified genomic DNA
musculus C57BL/6J (male) was obtained from t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Laboratory Mouse DNA Resource (http://www.jax.org/resources/documents/dnares/).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'sex="Male"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'mol_type="genomic DNA"
'strain="C57BL/6J"
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                                                                                                                                                                                                                                                                                                         73.8%;
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1 (bases 1 to 627)

Kohara, Y., Shin-i, T., Kimura, T., Narita, T., Jindo, T. and Takeda, H. Medaka EST Project in Takeda's lab
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Oryzias latipes
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha;
Beloniformes; Adrianichthyidae; Oryziinae; Oryzias.

1 (bases 1 to 617)
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1111 Yata, Mishima, Shizuoka 411-8540, Japan
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                                                                                                                                                                                                                                                                                                        Tel: 81-559-81-6856
Fax: 81-559-81-6855
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Location/Qualifiers
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Location/Qualifiers
                                                                                                  /mol_type="mRNA"
/strain="d-rR"
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/clone_lib="MF01SSA cDNA"
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/strain="Hd-rR"
                               /db_xref="taxon:8090"
/clone="MF01FSA002C15"
                                                                                                                                                           organism="Oryzias latipes"
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/sex="mixture of female and
'sex="mixture of female and male"
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Medaka EST Project in Takeda's lab
Unpublished
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Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha;
Beloniformes; Adrianichthyldae; Oryzinae; Oryzias.
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ALI83337
AL183337.1 GI:7821441
GSS; genome survey sequence.
Tetraodon nigroviridis
                                                              Tetraodon nigroviridis genome 240N06 of library G from Tetra
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Email:
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BJ533801.1 GI:22192613
EST.
Oryzias latipes (Japanese medaka)
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BJ533801 MF01SSB
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                                                                                                                                                                                                                                                                                                                                                                                                    tshini@genes.nig.ac.jp
Location/Qualifiers
                                                                                                                                                                                                                                                              /db_xref="taxon.8090"
/clone=MMF01SSB018B06"
/sex="mixture of female and male"
/tissue_type="whole embryo"
/dev_stage="segmentation stage 20 -
/clone_lib="MF01SSB_cDNA"
a 194 c 208 g 188 t 2 a
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                                                                                                                                                                                                                                                                                                                                                                 /organism="Oryzias latipes"
/mol_type="mRNA"
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/dev_stage="fry stage 40"
/clone_lib="MF01FSA cDNA"
168 c 189 g 92 t
                                                                                                                                                                                                                                                                                                                                                    /mol_type="mRNA"
/strain="Hd-rR"
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0; Mismatches
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Pred. No. 1.1e+03;
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as latipes
                                                                             survey sequence
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                                                                                                                                                                                                                 .1e+03;
                                                                                        DNA
                                                              nigroviridis, genomic survey
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nce T7 e
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                          WashU-Merck EST Project 1997
                                                                                                                            Homo sapiens
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240 bp
zt88h02.rl Soares_testis_NHT Homo
5', mRNA sequence.
AA39a1's
1 (bases 1 to 240)
Hiller,L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jost,S.,
Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M., Martin,J., Moore,B.,
Schellenberg,K., Steptoe,M., Tan,F., Theising,B., White,Y., Wylie,T., Waterston,R. and Wilson,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Web: www.genoscope.cns.fr)
This sequence is a single read and was generated as scale clone-end sequencing project of the Tetraodon genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Roest Crollius, H., Jaillon, O., Dasilva, C., Ozouf-Costaz, C., Fizames, C., Fischer, C., Bouneau, L., Billault, A., Quetier, F., Saurin, W., Bernot, A. and Weissenbach, J. Characterization and repeat analysis of the compact genome of freshwater pufferfish Tetraodon nigroviridis Genome Res. 10 (7), 939-949 (2000)
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                                                                                                                                               Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                    AA398146.1 GI:2051273
EST.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 (bases 1 to 1012)
                                                                                                                                                                                                                                   Homo sapiens (human)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /Clone_llb="G"
/note="Genoscope sequence ID : C0AG240DG03LP1-end :
/note="Genoscope sequence ID : C0AG240DG03LP1-end :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Tetraodon nigroviridis"
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/db_xref="taxon:99883"
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90.5%;
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Pred. No. 1.5e+03;
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IMAGE:729459
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1 (Dases 1 to 374)

Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N
                            FMAX: 314 200 2012
Email: mouseest@waltson.wustl.edu
This clone is available royalty-free through LLNL; contact the
This clone is available royalty-free through LLNL; contact the
                                                                                                                         Unpublished
Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. La
Tel: 314 286 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seq primer: -28m13 rev2 ET from Amersham
High quality sequence stop: 130.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 1694 Std Error: 0.00
                      IMAGE Consortium (info@image.llnl.gov) for
MGI:591784
                                                                                                       Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (house mouse)
Seq primer: -28m13 rev1 ET from Amersham
                                                                                                                                                                                                                                                    The WashU-HHMI Mouse EST Project
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
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314 286 1810
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I (Pharmacia) and stress of the modified pT/T3 vector. Library went through one round of normalization to Cot5, and was constructed by Bento Soares and M. Fatima Bonaldo. "
72 c 50 g 67 t
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/db_xref="GDB:5925988"
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Pred. No. 1.4e+03;
0; Mismatches 4;
                                                                                                                                               Louis, MO 63108
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/note="Organ: diaphragm; Vector: pBluescript SK:; Site_1:
/note="Organ: diaphragm; Vector: pBluescript SK: Site_1:
/note="Organ: diaphragm; Vector: pBluescript SK: Site_1:
/note="Organ: diaphragm muscle."
/note="Organ: diaphragm (#937303)"
/note="Organ: diaphragm; Vector: pBluescript SK: Site_1:
/note="Organ: diaphragm; Vector: pBluescript SK: Site_1:
/note="Organ: diaphragm muscle."
/note="Organ:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone="IMAGE:1077488"
/tissue_type="diaphragm"
/dev_stage="adult"
/lab_host="SOLR (kanamycin resistant)"
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/db_xref="taxon:10090"
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84.0%;
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Pred. No. 1.
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Scoring table:
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SUMMARIES

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(bases 1 to 26)

Ayal-Hershkovitz,M., Moskowitz,H., Miron,D., Gilboa,A.
Ben-Artzi,H., Yacoby-Zeevi,O., Pecker,I., Peleg,Y. and
Genetically modified cells and methods for expressing
heparanase and methods of purifying same
Patent: US 6343344-A 4 19-EB-2002;
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Ayal-Hershkovitz,M., Pecker,I. and Yacoby-Zeevi,O.
Genetically modified cells and methods for expressing
heparanase and methods of purifying same
Patent: US 6426209-A 4 30-JUL-2002;
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Pecker, I., Vlodavsky, I., Friedman, Y
Heparanase specific molecular proben
medical applications
Patent: US 6531129-A 4 11-MAR-2003;
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Ayal-Hershkovitz,M., Moskowitz,H., Miron,D., Gilboa,A., Mimon,M.,
Ben-Artzi,H., Yacoby-Zeevi,O., Pecker,I., Peleg,Y. and Shlomi,Y.
Genetically modified cells and methods for expressing recombinant heparanase and methods of purifying same
Patent: US 6475763-A 4 05-NOV-2002;
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Nierman, W.C., Feldblyum, T.V., Paulsen, I.T., Nelson, K.E., Eisen, J.,
Nierman, W.C., Feldblyum, T.V., Paulsen, I.T., Nelson, K.E., Potocka, I.,
Heidelberg, J.F., Alley, M.R. K., Ohta, N., Maddock, J.R., Potocka, I.,
Nelson, W.C., Newton, A., Stephens, C., Phadke, N.D., Ely, B.,
Laub, M.T., DeBoy, R.T., Dodson, R.J., Durkin, A.S., Gwinn, M.L.,
Laub, M.T., DeBoy, R.T., Dodson, R.J., Durkin, A.S., Gwinn, M.L.,
Haft, D.H., Kolonay, J.F., Smit, J., Craven, M., Khouri, H., Shetty, J.,
Berry, K., Utterback, T., Tran, K., Wolf, A., Vamathevan, J.,
Berry, K., White, O., Salzberg, S.L., Shapiro, L., Venter, J.C. and
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Nierman, W.C., Feldblyum, T.V., Laub, M.T., Paulsen, I.T., Nelson, K
Eisen, J., Heidelberg, J.F., Alley, M.R.K., Ohta, N., Maddock, J.R.,
Potocka, I., Nelson, W.C., Newton, A., Stephens, C., Phadke, N.D.,
Potocka, I., Nelson, W.C., Newton, A., Stephens, C., Phadke, N.D.,
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Bacteria; Proteobacteria; Alphaproteobacteria; Caulobacterales;
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Location/Qualifiers
                                                                                                                                                                                                                                           Submitted (31-JAN-2001) The Institute for Genomic Medical Center Dr. Rockville, MD 20850, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N
                                                                                                                                                                                                                                                                                    Direct Submission
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Proc. Natl. Acad. Sci. U.S.A. 98 (7), 4136-4141 (2001)
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/db_xref="taxon:32630"
/note="primer HP-6"
9 c 9 g
                                    complement (90. .2633)
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/mol_type="genomic DNA"
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                                                                               'gene="CC3461"
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IGIKTÄAQLITEYGDLDTLLARAGEIKQPKRRETLINPADQIRLSRALVKLDCDTPLP
QPLDALTVRBEDKSALAAFLEQMEFRSLARRVGDGSAAATPGTLDRPAAPPKAPVVSV
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IAPSTGRVHTSYALAATTTGRLSSSDPNLQNIPVRTEEGRKIRKAFVAAPGHVLISAD
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Idpekynvnggsiaighpfgmtgarcaghlllegkrrkaklgvvtmcigggmgaaglf
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VSRDASALTGSVSVDLGYPAAAVLLESNLRDTTDLEQFTQELELASTTDGELQWVIGG
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complement(3998. .4279)
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SLQHVGNRFTQASDQENNPRLFVSNLAFGGATGRVPTAVNLALPSYEIVNLSAGLEMQ
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ATIQOIPESINAQTEKDIQRSGAVTLEDLSRAVAGLTIQNLGREQGSQVSVRGVSAGQV
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YITNQPKLGVSEGTFEANANLVDGDAFGGHVKGAVNIPISDKIAMRAVGYLTQYGGFI
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/db xref="GI:13425182"
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/db_xref="GI:13425181"
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protein_id="AAK25426.1"
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/db_xref="GI:13425183"
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                                                                                                                                              Sequence 418 from Patent AX136496
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                        Homo sapiens
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Avlptggkslcyqibliylspelglurgltaradvrglrqagvalerlgsismd

ersdiyrridagcybllylspeglmqppmldrlsrtplaliavdeahcybgchadfre

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eyrmlgrlaelfpdapelavyratabagtrddiraelhlggrpvdsfrafeldavr

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geaqlfytgigresgptwrdlfdtlfegllredpngrpliglgvrqvyrne

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9247. .9555
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complement(9792. .10250)
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7355. .9202
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/transI_table=11
product="conserved hypothetical protein"
/protein_id="AAK25429.1"
/db_xref="GI:13425187"
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¤QQTRTFAAEQARAGAAWTTKQAKEAHHYAEDHPMGLALGAFALGLGLGFLISRNLAR
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/transl_table=11
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protein_id="AAK25428.1"
db_xref="G1:13425186"
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/db_xref="GI:13425185"
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Pred. No. 5.7e+02;
0; Mismatches 2;
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EP1067182
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                       1 CGCATATGCAGGACGTCGTGGACCTG 26
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Patent: EP 1067182-A 418 10-JAN-2001;
Helix Research Institute (JP)
Location/Qualifiers
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Hayashi,K.
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TOSHIO OTA,TAKAO ISOGAI,TETSUO NISHIKAWA,YURI KAWAI,TOMOYASU
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JP 2002017376-A/245
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                                                                                                                                                                                  /organism='Homo sapiens
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/mol_type="genomic DNA"
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154 c 127 g 10
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154 c 127 g 10
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84.6%;
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Pred. No. 7.3e+02,
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Sequence 1 from patent US
AR210040
AR210040.1 GI:21512167
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AX557106
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Patent: WO 0244353-A 1 06-JUN-2002;
Sangamo Biosciences Inc. (US)
Location/Qualifiers
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                                                                                                                                                                                                                                                                                        Human heparanase gene regulatory se
Patent: WO 0244353-A 4 06-JUN-2002;
Sangamo Biosciences Inc. (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                          synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                    synthetic construct
                                                                                                                                                                                                                                                                                                                                          Wolffe,A.P.
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                                                                                                                            CGCATATGCAGGACGTCGTGGACCTG 26
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                                                                                                                                                   Conservative
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                                                                                                                                                                                                         /note="human heparanase gene in the vicinity of the upstream region"
352 c 452 g 286 t
                                                                                                                                                                                                                                            /organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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187 c 230 g 92 t
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                                                                                                                                                                                                                                                                                                                                                              sequences.
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84.6%;
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Patent WO0244353
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Pred. No. 7.3e+02;
0; Mismatches 4;
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Pred. No. 7.2e+02;
0; Mismatches 4
                                               1593
                                  593 bp
6387643.
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CGCATATGCAGGACGTCGTGGACCTG 26
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SOURCE
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CC Stranded
CC Topology
CC Human pl
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Human platelet heparanase polypeptide, polynuclectide molecule encoding the same and method of identifying compound changing Patent: JP 2002504376-A 1 12-FEB-2002;
PHARMACIA & UPJOHN CO
OS Unidentified PM JP 2002504376-A/1
PD J2-FEB-2002
PF 18-FEB-2002
PF 18-FEB-2009
                                                                                                                                                                                                                                                                                                                                                                                                                    PF 18-FEB-1999 JP 2000533569
PR 24-FEB-1998 US 60/075706,26-MAR-1998 US 60/079401 PI
ROBERT L HEINRIKSON, MICHAEL B FAIRBANKS, ANA M MILDNER PC
C12N15/09, C07K16/40, C12N1/21, C12N5/10, C12N9/24, C12Q1/34, C12N15/
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22; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unidentified
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JP 2002504376-A/1.
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nilarity 84.6%;
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                                                                                                                                                                                                                                                                                                                                                                 Topology: Linear;
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370 c 369 g
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                                                                                            /organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
370 c 369 g 42
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Pred. No.
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Pred. No. 7.2e+02;
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AR156691
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                                                                                                                                                                                                                                                                           112
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Unclassified.

1 (bases 1 to 1713)
Freeman, C.Geoffrey., Hulett, M.Darren., Parish, C.Richard. and
                                                                                                                                         Sequence 12 from patent AR156691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (18-MAY-1999) Protein Chemistry,
180 Varick Street, New York, NY 10014, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kussie,P.H., Hulmes,J.D., Ludwig,D., Patel,S., Navarro,E.C., Seddon,A.P., Giorgio,N.A. and Bohlen,P.
Direct Submission
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AF152376
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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LYDENFDPLPDYWLSLLFKKLVGTKYLMASVQGSKRRKLRVYLHCTNTDNFRYKEGDL
TLYAINLHNYKYKLRLPYFESNKQVDKYLLFBLGPHGLLSKSVQLNGLTLKMVDDQTL
PPLMEKPLRPGSSLGLPAFSYSFFVIRNAKVAACI"
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SWELGANEPNSFYLKKADIFINGSQLGEDFIQLHKLLRKSTFKNAKLYGEDVQDFRKTA
KMLKSFLKAGGEVIDSVTWHHYYLNGRTATREDFLNPDVLDIFISSVQKVFQVVESTR
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db_xref="taxon:9606"
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Pred. No. 7.1e+02;
0; Mismatches 4;
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Search completed: February 16, 2004, 11:42:59 Job time: 125.136 secs
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                                                      143 CGCAAGCACAGGACGTCGTGGACCTG 168
                                                                     1 CGCATATGCAGGACGTCGTGGACCTG 26
                                                                                                                                                                                                                            Isolated nucleic acid molecule encoding mammalian endoglucuronidase and uses therefor Patent: US 6242238-A 12 05-JUN-2001;
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Pred. No. 7.1e+02;
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Maximum Match 100%
Listing first 45 summaries
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1: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*

2: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*

3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*

4: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*

5: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1984.DAT:*

6: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1984.DAT:*

6: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1985.DAT:*

7: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1986.DAT:*

8: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1988.DAT:*

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9: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1988.DAT:*
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AAF 90 / 00	AAA75053	AAX35650	AAA91112	AAZ33290	AAZ39195	AAA75051	AAX35648	ID
Hullall CDNA GICCUIII	CDNA encoding a nu	cDNA encoding a hu	Human heparanase,	Human heparanase n	Human heparanase e	cDNA encoding a hu	cDNA encoding a hu	Description

Human polynucleoti	ABZ11527	24	1891	11.3	194.4	45	
Nucleotide sequenc	AAH28347	22	3943	11.3	195	44	
Human heparanase-2	AAD29203	24	1674	11.4	195.6	43	
Heparanase-like pr	AAH22673	22	2300	11.4	196.4	42	
DNA encoding novel	AAS13843	22	1930	11.4	196.4	41	
Human heparanase,	AAA91099	22	1724	11.4	196.4	40	
Human heparanase-2	AAD29205	24	1511	11.5	197.6	39	
Rat EST which is h	AAA75082	21	385	13.4	230.6	38	
•	AAA91098	22	1898	15.7	269.4	37	
Human heparanase-2	AAD29204	24	1685		270.6	36	
Human Heparanase-2	AAF86101	22	1779	16.2	278.8	35	
DNA encoding hepar	AAS13848	22	1779		282	34	
Human heparanase I	AAI70849	24	2496		284.6	u u	
٠.	AAH22671	22	2636		284.8	32	
Human heparanase-2	AAD29202	24	1847	16.5	284.8	31	
Human heparanase,	AAA91097	22	2060	16.6	285.2	30	
Nucleotide sequenc	AAA75080	21	44848	•	287.8	29	
Human heparanase u	ABN86003	24	1419	16.7	287.8	28	
Human heparanase g	ABN86000	24	605	16.7	287.8	27	
Bovine EST associa	ABX51804	25	428	18.2	313.8	26	a
Primer specific fo	AAF94131	22	504	25.2	433.6	25	a
Primer specific fo	AAF93984	22	474	25.3	435.2	24	
Murine EST which i	AAA75052	21	824	26.3	453	23	
	AAX35649	20	824	•	453	22	
Kidney cancer rela	ABL68772	24	553	28.3	486.8	21	Ω
Chicken heparanase	ABL40748	24	1605	34.6	595	20	
Rat heparanase enz	AAX37262	20	1192	45.7	786.2	19	
Murine heparanase	AAX37261	20	1380	٥.	802.2	18	
Mouse heparanase c	AAA91113	22	2396	ω.	1092	17	
cDNA encoding a mu	AAA75081	21	2396	ü	1092	16	
Chicken signal pep	ABL40753	24	1584	9	1535	15	
Human pre-prohepar	AAZ11236	20	1593	92.1	1585	14	
Human heparanase e	ABZ22816	25	1669	4	1631.4	13	
Human heparanase i	AAH20940	22	1724	7	•	12	
encoding a h	AAX86671	20	3726		•	11	
	AAX37260	20	1723			10	
n heparana	AAX37259	20	1713	98.5	1694.6	9	

ALIGNMENTS

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AAX35648
AAX35648 standard; cDNA; 1721 BP.

XX
AC AAX35648;
XX
AC AAX35648;
XX
DT .09-JUL-1999 (first entry)
XX
CDNA encoding a human heparanase protein.
XX
KW Heparanase; hpa; modulator; heparin-binding growth factor;
KW cellular response; cytokine; cell interaction; plasma lipoprotein;
KW cellular susceptibility; infection; disintegration;
KW neurodegenerative plaque; wound healing; angiogenesis; restenosis;
KW athersclerosis; inflammation; neurodegenerative disease; neutralise;
KW plasma heparin; micrometastasis; autoimmune lesion; renal failure;
XX
SS Homo sapiens.
XX
PN w09911798-A1.
XX
PN w09911798-A1.
XX
PP 31-AUG-1998; 98WO-US17954.
PF 31-AUG-1998; 98WO-US17954.
PR 02-JUL-1998; 98WS-0109386.
PR 02-JUL-1998; 98US-0109386.
PR 02-JUL-1998; 98US-0109386.
PR 02-SEP-1997; 97US-0922170.
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PA (FRIE) FRIEDMAN M M.
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Best Local Similarity 100
Matches 1721; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1721 BP; 451 A; 413 C; 410 G; 447 T; 0 other;
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enosis, and inflammation
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                                                                                                      TACGGTTGGAATGGCCCTACCAGGAGCAATTGCTACTCCGAGAACACTACCAGAAAAAAGT
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    CAGGACTGGACTTGATCTTTGGCCTAAATGCGTTATTAAGAACAGCAGATTTGCAGTGGA
                                TCAAGAACAGCACCTACTCAAGAAGCTCTGTAGATGTGCTATACACTTTTGCAAACTGCT
                                                                                       TACGGTTGGAATGGCCCTACCAGGAGCAATTGCTACTCCGAGAACACTACCAGAAAAAGT
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                                                                                                    TAAAGATGGTGGATGATCAAACCTTGCCACCTTTAATGGAAAAACCTCTCCGGCCAGGAA
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Best Local Similarity
Matches 1721; Conser
                                                                                                                                The present sequence encodes a human protein with heparanase catalytic activity. The heparanase (hpa) polynucleotide is useful in gene therapy, particularly in treating tumour, inflammation or autoimmunity. Particularly, the polynucleotide is useful in modulating the bioavailability of heparin-binding growth factors, cellular responses to heparin-binding growth factors (e.g. bfg) and cytokines (e.g. interleukin (IL)-8), cell interaction with plasma lipoproteins, cellular susceptibility to certain viral and some bacterial and protozoa infections, or disintegration of neurodegenerative plaques. The polynucleotide is also useful in wound healing (e.g. thermal, chemical or radiation burns), and in the treatment of angiogenesis, restenosis, atherosclerosis, inflammation, neurodegenerative diseases (Gerstmann-straussler Syndrome or Creutzfeldt-Jakob disease), and some viral,
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The present invention describes heparanase-specific molecular probes, useful for methods of detecting heparanase in situ. The probes and anti-heparanase antibodies are used to detect or quantify the expression of heparanase, for diagnosis and monitoring of diseases (especially metastasis), for treatment of heparanase-associated diseases (e.g. tumours, (adeno)carcinoma, squamous cell carcinoma, teratocarcinoma, mesothelioma, melanoma, lymphoma or leukemia, a solid cancer (or its metastases) derived from liver, prostate, bladder, breast, ovary, cervix, colon, skin, intestine, stomach, uterus and pancreas, kidney disease, diabetes and inflammation, haemorrhagic nephritis, nephrotic syndrome, sepsis and inflammatory or autoimmune disease), for targeted
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                                                                                                                                                                                                                                                                                                                                                                             Heparanase-specific molecular probes useful treatment, e.g. of tumors, and for targeted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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Best Local Similarity
                                                                                                                                                                                 The specification describes a polypeptide having heparanase (hpa) activity. The recombinant protein is used as a modulator of heparin-binding growth factors, cellular responses to heparin-binding growth factors and cytokines, cell interaction with plasma lipoproteins, cellular susceptibility to viral, protozoal and bacterial infections or disintegration of neurodegenerative plaques. Heparanase may be useful for conditions such as wound healing, angiogenesis, restenosis, athersclerosis, inflammation, neurodegenerative diseases, and viral infections. Mammalian heparanase can be used to neutralize plasma heparin, and anti-heparanase antibodies may be applied for immunodetection and diagnosis of micrometastases, aucoimmune lesions, and renal failure in biopsy specimens, plasma samples, and body fluids.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cellular response; cytokinė; cell interaction; plasma lipoprotein; cellular susceptibility; infection; disintegration; neurodegenerative plaque; wound healing; angiogenesis; restenosis; athersclerosis; inflammation; neurodegenerative disease; neutralise; plasma heparin; micrometastasis; autoimmune lesion; renal failure;
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Matches 1716;

Conservative

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Score 1713; Pred. No. 0;

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22; <u>ა</u>

Length

Query Match 99.5%; Best Local Similarity 99.7%;

Sequence 1722 BP; 449 A; 414 C; 412 G; 447 T; 0 other;

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This invention relates to nucleic acid sequences AAF93744 - AAF93916 CC which encode human secretory or membrane proteins represented by CC AAB88317 - AAB88419. Included in the invention are primers CC AAF93917 - AAF94295 and AAF62232 - AAF62235 which are used to isolate the CC charpast represented of invention. The invention also includes methods for CC the production of antibodies directed against the proteins, and cDNA CC can be used in gene therapy. The polynucleotide sequences and the CC can be used in gene therapy. The polynucleotide sequences are consisted with inappropriate secretory proteins they encode may be used in the prevention, treatment and CC diagnosis of diseases associated with inappropriate secretory protein/membrane protein expression. The nucleic acids and complementary CC sequences may also be used as DNA probes in diagnostic assays (e.g. polymerase chain reactions (PCR)) to detect and quantitate the presence of similar nucleic acid sequences in samples. They may also be used to study the expression and function of secretory proteins/membrane CC polypeptides and their role in metabolism. The polypeptides may be used CC as antigens in the production of antibodies against them and in assays to cidentify modulators (agonists and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also be used as therapeutic acids and antagonists may also 
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11-JAN-2000;
02-MAY-2000;
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Best Local Similarity
Matches 1697; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1713 BP; 460 A; 404 C; 406 G; 443
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to nucleic acid sequences that encode heparanase enzymes having endoglucuronidase activity. Recombinant heparanases are capable of removing the Ms side chain from heparan sulfate proteoglycan (MSPG). Sulfated oligosaccharides, sulphonates or HSPG can be used to inhibit heparanase, this is useful for treatment of a physiological or medical condition associated with elevated heparanase activity, such as metastasis, angiogenesis, wound healing, angioplasty-induced restenosis, arteriosclerosis, atherosclerosis and inflammation. The human, murine and rat heparanases can be used to enhance wound healing, especially associated with tissue development and repair. The conditions mentioned above can be diagnosed using specific antibodies, and also using primers and probes specific for the heparanase polymucleotides. Other uses of the heparanases include sequencing sulfated molecules such as HSPG.
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                                                                                                                  TTTGGAGCAGGAAACTACCATTTAGTGGAATAACTTCGATCCTTTACCTGATTATTGG
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                                                                                                TTTGGAGCAGGAAACTACCATTTAGTGGATGAAAACTTCGATCCTTTACCTGATTATTGG
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            Claim
                                           New heparanase polypeptide useful for treating autoimmune skin diseases, cardiovascular diseases and nervous system including Alzheimer's disease
                                                                                                                                                    Nakajima M,
                                                                                                                                                                                                                                 09-FEB-1998;
                                                                                                                                                                                                                                                              05-FEB-1999;
                                                                                                                                                                                                                                                                                            12-AUG-1999.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alzheimer's diséase; cancer; cancer metastasis; angiogenesis; inflammation; arthritis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA encoding a human protein with heparanase activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-MAR-2003
14-OCT-1999
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NOVARTIS-ERFINDUNGEN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Sin
Matches 1688;
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                               CTGCTCTTCCAAGGGGTATAACATTTCTTGGGAACTAGGCAATGAACCTAACAGTTTCCT
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                                                                                           GTTATTAAGAACAGCAGATTTGCAGTGGAACAGTTCTAATGCTCAGTTGCTCCTGGACTA
                                                                                                                                                           AGATGTGCTATACACTTTTGCAAACTGCTCAGGACTGGACTTGATCTTTGGCCTAAATGC
                                                                                                                                                                                                                      GCTACTCCGAGAACACTACCAGAAAAAGTTCAAGAACAGCACCTACTCAAGAAGCTCTGT
                                                                                                                                                                                                                                                               ATCCATCCTCATGTGGAGGAGAAGTTACGGTTGGAATGGCCCTACCAGGAGCAATT
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              CTGCTCTTCCAAGGGGTATAACATTTCTTGGGAACTAGGCAATGAACCTAACAGTTTCCT
                                                                                                                                      AGATGTGCTATACACTTTTGCAAACTGCTCAGGACTGGACTTGATCTTTGGCCTAAATGC
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Treatment or prevention of cardiac insufficiency and related conditions, e.g. pulmonary congestion and dysphoea, comprises administration of heparanase inhibitor - \,
                                                                                                                                                                                                                                                                                                                                                      Heparanase; inhibitor; cardiac insufficiency; cardiant; nephrotropic; hepatotropic; veterinary medicine; congestive heart failure; dyspnoea primary cardiomyopathy; peripheral odema; pulmonary congestion; hepatic congestion; hydrothorax; ascite; nocturia; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                 Human heparanase inhibitor cDNA
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Disclosure; Page 8-11; 16pp; German.

This invention describes a novel heparanase inhibitor which can be used for the treatment or prevention of cardiac insufficiency and associated indications, symptoms and/or malfunctions. The heparanase inhibitor of the invention has cardiant, nephrotropic and hepatotropic activity. The products of the invention can be used in human and veterinary medicine, for the treatment or prevention of congestive heart failure e.g. primary cardiomyopathy. Associated conditions treated or prevented with the inhibitor are especially peripheral odemas, pulmonary and hepatic congestion, dyspnoea, hydrothorax and ascites. Renal problems, e.g. nocturia can also be treated. This sequence encodes the human heparanase protein described in the method of the invention.

Sequence 1724 BP; 466 A; 405 C; 410 G; 443 T; 0 other;

S Ş Ş 밁 뫄 밁 Ś Query Match Best Local Similarity Matches 1696; Conser 198 187 127 138 67. 78 18 8 CAGGAGCCGC CAGGAGCCGCTGCACCTGGTGAGCCCCTCGTTCCTGTCCGTCACCATTGACGCCAACCTTG AAGCCTGCGCTGCCGCCGCCGCTGATGCTGCTGCTCCTGGGGCCGCTGGGTTCCCCTCTCCC CCGCTGCGCGGCAGCTGGCGGGGGGGGGGAGCAGCCAGGTGAGCCCAAGATGCTGCTGCGCTCG CCTGGCGCCCTGCCCCGACCTGCGCAAGCACAGGACGTCGTGGACCTGGACCTTCTTCACC AAGCCTGCGCTGCCGCCGCCGCTGATGCTGCTGCTCCTCGGGGCCGCTGGGTCCCCCTCTCC CCGCTGCGCGCAGCTGGC-GGGGAGCAGCCAGGTGAGCCCAAGATGCTGCTGCGCTCG Conservative 97.8%; 99.7%; 0; Score 1682.6; Pred. No. 0; 0; Mismatches 멂 4. 22; Indels Length 1724; 1; Gaps 257 197 66 246 186 126 137

RESULT 12 AAH20940 ID AAH20 XX

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The present invention describes an oligonucleotide having a sequence complementary to a sequence of the number of a heparanase. The oligonucleotide hybridises with the ribonucleic acid under condition of high stringency and has a sequence comprising 10-40 bp. The
                                                                                             New oligonucleotide having a sequence complementary to a sequence ribonucleic acid encoding a heparanase, useful for preparing a composition for treating tumor -
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Best Local Similarity 99.6%;
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RESULT 14
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Humar AAZ11236 standard; (first entry)

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Human pre-proheparanase coding sequence.

Human; pre-proheparanase; platelet; wound healing; angiogenesis blocker;

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                                                                                                                                                                                                                                                                                 This sequence encodes the human pre-proheparanase of the invention. This conveners was isolated from human platelets. The heparanase can be used for identifying agents which alter heparanase activity. The heparanase can be used for wound healing or for blocking angiogenesis or inflammation. It can be used for treating e.g. psoriasis, diabetic retinopathy or solid tumours, or for the degradation of heparin and the neutralisation of heparanase activity can be used in the treatment of contribitors of heparanase activity can be used in the treatment of carbiritis, asthma, and other inflammatory diseases, vascular restenosis, catherosclerosis, tumour growth and progression, fibroproliferative catherosclerosis, tumour growth and progression, fibroproliferative consenses. The products can also be used for detection and diagnosis. The convenient selection of compounds having anti-heparanase and the paranase and the paranase activity. Inhibition of heparanase activity, allows for the convenient selection of compounds having anti-heparanase activity. Can be measured by blocking heparanase-mediated release of radioactive fragments from in covor radiolabelled (HSPG)/heparin.
                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 1588; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated platelet heparanase products for, e.g. wound healing
                                                                                                                                                                                                                                                            Sequence 1593 BP;
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24-FEB-1998;
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    CTCCTGGGTTCTCCAAAGCTTCGTACCTTGGCCAGAGGCTTGTCTCCTGCGTACCTGAGG
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99.7%;
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Pred. No. 0;
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                                                               GTGGATGAAAACTTCGATCCTTTACCTGATTATTGGCTATCTCTTCTGTTCAAGAAATTG
                                                                                                                                                           CGAATGGGAATAGAAGTGGTGATGAGGCAAGTATTCTTTGGAGCAGGAAACTACCATTTA
                                                                                                                                                                                CGAATGGGAATAGAAGTGGTGATGAGGGCAAGTATTCTTTGGAGCAGGAAACTACCATTTA 1241
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                                                                                                                                                                                                                                               TTGCTATCCGACACCTTTGCAGCTGGCTTATGTGGCTGGATAAATTGGGCCTGTCAGCC
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Gallus gal
                                                  Nucleic acid encoding avian and reptile heparanase polypeptide is useful to treat various heparin-related disorders and the signal peptide is useful in production of membrane-targeted or secreted recombinant proteins
                                                                                                                                                                                                                                                                                                                                                                                                                              mat_peptide
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                                                                                                                                                                                        Goldshmidt O,
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                   Disclosure; Page
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DB; ABB07815.
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/note= "chicken l
58.1581
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Best Local Similarity
Matches 1553; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to an isolated avian and reptile nucleic acid, encoding a polypeptide with heparanase catalytic activity. The signal peptide of the nucleic acid can be used to express membrane-associated or secreted proteins in heterologous expression systems. The encoded polypeptides can be used to prevent tumour angiogenesis, metastasis and invasion, and to intervene with pathologies associated with impaired heparin-binding growth factors, cellular responses to heparin-binding growth factors and cytokines, cell interaction with plasma lipoproteins, cellular susceptibility to viral, protozoa and bacterial infections or disintegration of neurodegenerative plaques. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1584 BP; 424 A; 361 C; 373 G; 426 T; 0 other;
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                                                      TCAATGGGTCGCAGTTAGGAGAAGATTTTATTCAATTGCATAAACTTCTAAGAAAGTCCA
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1672 CCAAAGTTGCTGCTTGCATCTGA	1612 GGCCAGGAAGTTCACTGG	1552 GTCTAACTCTAAAGATGG 	1492 AATACCTTCTAAGACCTT	1432 TCCATAACGTCACCAAGT	1372 GCACAAACACTGACAATC	1312 AGGTGTTAATGGCAAGCG	1252 ACTTCGATCCTTTACCTG	1192 TAGAAGTGGTGATGAGGG	1132 ACACCTTTGCAGCTGGCT	1072 AGAAGGTCTGGTTAGGAG 962 AGAAGGTCTGGTTAGGAG	1012 ACATTTTATTTCATCTG	952 ACTACTATTTGAATGGAC 	782 AGATGCTGAAGAGCTTCC
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ALIGNMENTS

REFERENCE Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000) Carninci, P. and Hayashizaki, Y. High-efficiency full-length cDNA cloning Meth. Enzymol. 303, 19-44 (1999) 99279253 Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus genes

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Functional annotation of a full-length mouse cDNA collection
                                                                                                                                                                    Direct Submission

Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Sushiro-cho, Tgurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222, Pax:81-45-503-9216)

CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
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Analysis of the mouse transcriptome based of 60,770 full-length cDNAs
Nature 420, 563-573 (2002)
6 (bases 1 to 2173)
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                                                         prepare mouse tissues.
Please visit our web site for further URL:http://genome.gsc.riken.go.jp/
URL:http://fantom.gsc.riken.go.jp/.
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Email: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODIO59CG08NP1&cluster=2469.r. Contact
Feng Liang Email: fllang@lifetech.com/ URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODIO59CG08NP1.
Location/Qualifiers
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Li, W.B., Gruber, C.,
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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CACCAGGCCTGGCAAGAAGGTCTGGTTAGGAGAAACAAGCTCTGCATATGGAGGCGGAGC
                                                                   CCCTGATGTATTGGACATTTTTATTTCATCTGTGCAAAAAGTTTTCCAGGTGGTTGAGAG
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/clone_Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="Ist strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and Ecor v
sites of the pCMVSPORT 6 vector. Library was normalized.
a 251 c 233 g 323 t 44 others
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/mol_type="mRNA"
/db_xref="taxon:9606"
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Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P. Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishi, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watshiki, M.,
                                                                                                                                 Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new (Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                       Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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1962 bp mRNA linear HTC 05-DEC-2002
Mus musculus 0 day neonate lung cDNA, RIKEN full-length enriched
library, clone:E030042C09 product:heparanase, full insert sequence.
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                                                                     Carninci, P.,
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   /strain="C57BL/6J"
/db_xref="FANTOM_DB:E030042C09"
/db_xref="taxon:10090"
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RS Kawai, J., Shinagawa, A., Shibata, K., Yoshino, M., Itoh, M., Ishii, Y., Arakawa, T., Hara, A., Fukunishi, Y., Konno, H., Adachi, J., Fukuda, S., Aizawa, K., Izawa, M., Nishi, K., Kiyosawa, H., Kondo, S., Yamanaka, I., Salto, T., Okazaki, Y., Gojobori, T., Bono, H., Kasukawa, T., Saito, R., Kadota, K., Matsuda, H., Ashburner, M., Batalov, S., Casavant, T., Kadota, K., Matsuda, H., Ashburner, M., Batalov, S., Casavant, T., Kuchl, P., Lewis, S., Matsuo, Y., Nikaido, I., Pesole, G., Kuchl, P., Lewis, S., Matsuo, Y., Nikaido, I., Pesole, G., Quackenbush, J., Schriml, L.M., Staubli, F., Suzuki, R., Tomita, M., Wagmer, L., Washio, T., Sakai, K., Okido, T., Furuno, M., Aono, H., Baldarelli, R., Barshi, G., Blake, J., Boffelli, D., Bojunga, N., Carninci, P., de Bonaldo, M.F., Brownstein, M.J., Bult, C., Flitcher, C., Fujita, M., Gariboldi, M., Gustincich, S., Hill, D., Hofmann, M., Hume, D., Kamiya, M., Lee, N. H., Lyons, P., Marchionni, L., Mashima, J., Mazzarelli, J., Mombaerts, P., Nordone, P., Ring, B., Ringwald, M., Rodriguez, I., Sakamoto, N., Sasaki, H., Sato, K., Schonbach, C., Seya, T., Shbata, Y., Storch, K.F., Suzuki, H., Toyo-oka, K., Wang, K.H., Weitz, C., Whittaker, C., Wilming, L., Wohtsuki, S., and Usarachiz, M., Yoshida, K., Hasegawa, Y., Kawaji, H., Kohtsuki, S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222, Pax:81-45-503-9216)
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Analysis of the mouse transcriptome
of 60,770 full-length cDNAs
Nature 420, 563-573 (2002)
6 (bases I to 1962)
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                                                                                                                                                                                                                                                                                                                               Encyclopedia Project of Genome Exploration Research Group
Genomic Sciences Center and Genome Science Laboratory in F
Division of Experimental Animal Research in Riken contribu
                                                                                                                                    URL:http://genome.gsc.riken.go.jp/
URL:http://fantom.gsc.riken.go.jp/.
                                                                                                                                                                                                                            prepare mouse tissues.
Please visit our web site for further details.
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Li, W.B., Gruber, C., Jessee, J. and Polayes, D. Full-length cDNA libraries and normalization Unpublished
On Feb 15, 2001 this sequence version replacements: Genoscope Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - France
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 http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CS0DI059CG08QP1&cluster=2469.r. Contact Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID : CS0DI059CG08QP1. Location/Qualifiers
                                                                                                         Email: segref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r
more information about this cluster, see
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CGCAGTTAGGAGAAGATTTTATTCAATTGCATAAACTTCTAAGAAAGTCCACCTTCAAAA
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/clone_Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="1st strand cDNA was primed with a NotI-oligo(dT)
/note="1st strand cDNA was primed odit-strand cDNA was
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and ECOR V
sites of the pCMVSPORT 6 vector. Library was normalized."
a 293 c 293 g 280 t 39 others
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/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODI059YN15"
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Pred. No. 4.6e-244;
7; Mismatches 6;
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Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODIO28DCO2QPl&cluster=2469.r. Contact:
Feng Liang Email: fliang@lifetech.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODIO28DCO2QP1.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vert. Mammalia; Eutheria; Primates; Catarrhini; Hol (bases 1 to 1201)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Pull-length cDNA libraries and normalization Unpublished
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BP 191 91006 EVRY cedex - France
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/clone_Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/clone_Tist strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR v
sites of the pCMVSPORT 6 vector. Library was normalized.
a 282 c 305 g 279 t 43 others
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/db_xref="taxon:9606"
/clone="CSODI028YF04"
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99.3%;
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Pred. No. 3e-238;
D; Mismatches
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Contact: Genoscope
Genoscope - Centre N
                                                                                                        AL545232 1200 bp mRNA linear ES AL545232 Homo sapiens PLACENTA COT 25-NORWALIZED Homo clone CSODIO28YF04 3-PRIME, mRNA sequence. AL545232 AL545232 GI:31267068
                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 1200)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization
                                                                                       Homo sapiens
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                  2001 this sequence version replaced gi:12877713
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765 ATTITCATCAAIGGGGTCGCAGTTAGGAGAAGATTATATTCAATTGCATAAACTTCTAAGA
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Library was constructed by Life Technologies; a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODIO28DC02NP1&cluster=2469.r. Contact:
freng Liang Email: fliang@lifetech.com URL:
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODIO28DC02NP1.
Location/Qualifiers
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/clone_Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="Ist strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
a 249 c 249 g 332 t 70 others
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/db_xref="taxon:9606"
/clone="CS0DI028YF04"
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Pred. No. 3.2e-228;
9; Mismatches 15;
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1 (bases 1 to 1083)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
Unpublished
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODIO58BE12NP1&cluster=2469.r. Contact
Feng Liang Email: fliang@nlifetech.com URL:
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODIO58BE12NP1.
Location/Qualifiers
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BP 191 91006 EVRY cedex - France
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                                                                             GCAATGAACCTAACAGTTTCCTTAAGAAGGCTGATATTTTCATCAATGGGTCGCAGTTAG
                                                                                                                                                                           ATGCTCAGTTGCTCCTGGACTACTGCTCTTCCAAGGGGTATAACATTTCCTTGGGAACTAG
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                                                 GCAATGAACCTAACAGTTYCCTTAAGAAGGCTGATA-TTTCATCAATGGGTCGCAGTTAG
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/mol type="mRNA"
/mol type="mRNA"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/clone="CSODIO58YI24"
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/tissue_type="PLACENTA COT 25-NORMALIZED"
/clone_Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="lst strand cDNA was primed with a NotI-oligo(dT)
/note="lst strand cDNA was primed with a NotI-oligo(dT)
/note="lst strand cDNA was primed with a CDNA was
/note="lst strand cDNA was primed with a NotI-oligo(dT)
/note="lst strand cDNA was primed with a NotI-oligo(dT
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Pred. No. 2.9e
18; Mismatches
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CLONE CSODIO58YI24 3-PRIME, mRNA sequence.
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BP 191 91006 EVRY cedex - France
Email: segref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 2469.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSOBAKO6ODCO8NM1&cluster=2469.r. Contact
Feng Liang Email: fliang@lifetech.com URL:
http://fulllength.invitrogen.com/INVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSOBAKO6ODCO8NM1.
Location/Qualifiers
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1 (bases 1 to 914)
Li,W.B., Gruber,C.,
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larity 95.3%;
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/tissue type="PLACENTA COT 25-NORMALIZED"
/tissue type="PLACENTA COT 25-NORMALIZED"
/clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="lst strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
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a 191 c 188 g 275 t
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/mol_type="mRNA"
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                                                                                                                                                                                                                                                                                                                     Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Stefan
CDNA Library Preparation: Michael J. Brownstein (NHGRI) w:
and advice from Piero Carninci (RIKEN)
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: NDAM370 row: f column: 22
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Mammalia; Eutheria; Primates; C
1 (bases 1 to 881)
NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health,
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AGENCOURT 13905817 NIH MGC 147 Homo sapiens cDNA clone
IMAGE:30340461 5', mRNA sequence.
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Location/Qualifiers
/clone lib=WIH MGC 147"
/note=Torgan: placenta; Vector: pBluescriptR; Site_1:
/note=Torgan: placenta; Vector: pBluescriptR; Site_1:
all-XhoI; Site_2: BamH; Oligo-dT primed using primer
5'-TTTTTTTTTTTTTTTTTTTTVN-3', sice-elected for average
insert size_2.3 kb and normalized to ROT 5. This is a
primary library enriched for full-length clones and
constructed using the Cap-trapper method (Carninci, in
                                                                                                                                                                                /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:30340461"
                                                                                                                                          tissue_type="Human Placenta"
/lab_host="DH10B TonA"
                                                                                                                                                                                                                                            organism="Homo sapiens"
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                  sapiens
                   CDNA clone IMAGE: 6250265
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cDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information car
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCR0393 row: a column: 18
High quality sequence stop: 710.
Location/Qualifiers
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Mammalia; Eutheria, Primates; Catarrhini;
1 (bases 1 to 924)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
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Tissue Procurement: ATCC
                                                                 AACCTTTGAAGAGAGATTTACTGGCAATCTCAAGTCAACCAGGATATTTTGCAAATATTTG
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/lab host="DH108 (phage-resistant)"
/clone_lib="NIH_MGC_110"
/note="Organ: pancreas; Vector: pOTB7; Site_1: XhoI;
/note="Gran: pancreas; Vector: pOTB7; Site_1: XhoI;
/note="Gran: pancreas; Vector: pOTB7; Site_1: XhoI;
/site_2: EcoRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRi/XhoI sites using the
following 5: adaptor: GGCACGAG(G). Library constructed by
Ling Hong in the laboratory of Gerald M. Rubin (University
of California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."
03 a 271 c 227 g 219 t 4 others
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/db_xref="taxon:9606"
/clone="IMAGE:6250265"
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Pred. No. 4.2e-196;
D; Mismatches 37;
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                                                                                                                                                                                  CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM13218 row: b column: 01
High quality sequence stop: 616.
Location/Qualifiers
                                                                                                                                                                                                                                                                                           Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                       1 (bases 1 to 907)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
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AGENCOURT 7761619 NIH MGC 70
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                                    260
                                /organism="Homo sapiens"
/mol type="mRNA"
/mol type="mRNA"
/db xref="taxon:9606"
/clone="IMAGE:6017952"
/clone="IMAGE:6017952"
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/tissue_type="epithelioid carcinoma"
/lab host="DH10B (phage-resistant)"
/clone lib="NIH MGC_70"
/clone lib="NIH MGC_70"
/clone lib="NIH MGC_70"
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Site 2: SalI; cloned unidirectionally. Primer: Oligo dT.
Average insert size 1:1 kb. Library constructed by Life
Technologies."
176 ci 226 g 242 t 3 others
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Eukaryota; Metazoa;
Mammalia; Eutheria;
1 (bases 1 to 708)
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                                    Homo sapiens
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385 AGGAATCAACCTTTGAAGAGAGAAGTTACTGGCAATCTCAAGTCAACCAGGATATTTGCA
                                                                                               BQ775819 708 bp mRNA linear UI-H-FH0-bcg-a-07-0-UI.s1 NCI CGAP FH0 Homo sapiens UI-H-FH0-bcg-a-07-0-UI 3', mRNA sequence.
BQ775819 BQ775819.1 GI:21984295
EST.
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Chordata;
Primates;
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Tissue Procurement: James Martin
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Clone distribution information can be obtained
from Dr. M. Bento Soares, bento-soares@uiowa.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
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                                                                                                                                                                                                                                                                                                           GGCTTTATGTGGCTGGATAAATTGGGCCTGTCAGCCCGAATGGGAATAGAAGTGGTGATG
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                        AGCGTGCAAGGTTCAAAGAGAAGGAAGCTTCGAGTATACCTTCATTGCACAAACACTGAC 1389
                                                                                                                                          CCTGATTATTGGCTATCTCTTCTGTTCAAGAAATTGGTGGGCACCAAGGTGTTAATGGCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAG_SEQ=AGAATCCGGC"
157 c 144 g
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/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /dev_stage="Adult"
/lab_host="DH10B (Life Technologies)"
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                                                                                                                                                                                                                                                                                                                                                                                           RZPDLIB; I.M.A.G.E. cDNA Clone Collection;
Human UnigeneSet - RZPD3 (RZPDIIB No.972)
http://www.rzpd.de/CloneCards/cgi-
bin/showLib.pl.cgi/response?llbNo=972 Contact: Ina Rolfs
RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RZPD Deutsches Ressourcenzentrum fuer Genomforschung
Im Neuenheimer Feld 580, D-69120 Heidelberg, Germany
RZPD; IMAGP998B16561.
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                                                                                                                                                                                                                                           This clone is available royalty-free from RZPD; contact RZPD (clone@rzpd.de) for further information. M13r, Primer sequence: TTTCACACAGGAAACAGCTATGAC.
                                                                                                                                                                                                                                                                                                                                     Heubnerweg 6, D-14059 Berlin, Germany
Tel: +49 30 32639 101
Fax: +49 30 32639 111
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Ebert, L., Heil, O., Hennig, S., Neubert, P.,
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/organism="Homo sapiens"
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/db xref="taxon:9606"
/clone="IMAGp998B16561 ; IMAGE:257583"
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UI-H-DTO-avl-m-03-0-UI.sl NCI_CGAP_DTO
IMAGE:5881130 3', mRNA sequence.
               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 682)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer institute, Cancer Genome Anatomy Pro
                                                                                                                                                 Homo sapiens (human)
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a 138 c 149 g 182 t 2 others
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8.4e-159;
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                   Anatomy Project (CGAP)
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                                                                                                                                                                                                                                                                                                                                                                                        TGTCAGCCCGAATGGGAATAGAAGTGGTGATGAGGCAAGTATTCTTTTGGAGCAGGAAACT: 1233
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                                                           AACTCTGTATGCCATAAACCTCCATAACGTCACCAAGTACTTGCGGTTACCCTATCCTTT
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/clone_lib="NCI_CGAP_DTO"
/clone_lib="NCI_CGAP_DTO"
/note="Organ: Lung; Vector: pT773-Pac (Pharmacia) with a modified polylinker; Site_1: EcoR I; Site_2: Not I; NCI_CGAP_DTO is a cDNA library containing the following tissue(s): Metatastic Chondrosarcoma in Lung. The library was constructed according to Bonaldo, Lemnon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA synthesis was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to an EcoR I adaptor, digested with Not I, and cloned directionally into pT773-Pac vector. The oligonucleotide used to prime sequence that is located between the Not I site and the (dT)18 tail. The sequence tag for this library is
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TAG_TISSUE=lung metatastic chondrosarcoma
TAG_SEQ=AACTGTTCGG"
TAG_SEQ=AACTGTTCGG"
139 g 210 t 5 others
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/dev_stage="Adult"
/lab_host="DH10B (Life Technologies)"
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'db_xref="taxon:9606"
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Pred. No. 1.1e-158;
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KEYWORDS

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AACTGGAAGAATTCGCGGGCGCCTTTTTTTTTTTTTTT 3'], double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT7T3 vector. Library went through one round of normalization. Library constructed by M. Fatima Bonaldo." BASE COUNT 159 a 116 c 113 g 167 t 1 others	OR OR
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ITAGE CONSORTIUM (Info@inage.lini.gov) for further information. Insert Length: 912 Std Error: 0.00 Seq primer: -40UP from Gibco High quality sequence scop: 464. FEATURES Location/Qualifiers 5000000 1. 556 /ordanisme"Homo sapiens"	in in
Tumor Gene Index Unpublished Contact: Robert Strausberg, Ph.D. Email: Cgapbs-r@mail.nih.gov	8_
Eukaı Mamma FERENCE 1 () AUTHORS NCI-C	R.E
RESULT 15 AI342512/c AI342512/c AI342512 DEFINITION qt28g01.x1 Soares pregnant uterus NDHPU Homo sapiens cDNA clone ACCESSION AI342512 VERSION AI342512 VERSION AI342512.1 GI:4079439 KEYWORDS EST. SOURCE Homo sapiens (human) ORGANISM Homo sapiens	AC VEC
DY 1711 TCCTGACA 1718	음 성
DY 1652 TTTTTTTGTGATAAGAAATGCC-AAAGTTGCTGCTTGCATCTGAAAATAAAAT	라 &
Db 1592 TTTAATGGAAAAACCTCTCCGGCCAGGAAGTTCACTGGGGTTTGCCAGCTTTCTCATATAG 1651	β &
DY 1532 CAPATCTGTCCAACTCAATGGTCTAAACTCTAAAGATGGTGGATGATCAAACCTTGCCACC 1591	유왕
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		17	1699	77	1639	137	1579	197	1519	257	1459	317	1399	377	1339	437	1279	497

Search completed: February 16, 2004, 13:40:49 Job time : 6691.2 secs

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Minimum DB seq length: 0
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Pred. No. is the number of results predicted by chance to have

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	C	Result
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ALIGNMENTS	AROB0679 ARI25603 ARI25603 ARI25603 ARI25604 ARI394190 ARI291286 ARI243203 ARI287436 ARI287436 ARI287436 ARI287436 BD0774431 BD0774431 BD0774431 BD0734431 ARI36167 BD123536 ARI56691 ARI56691 ARI56692 AXI36167 ARI56696 ARI71467 ARIF144367 ARIF144367 ARIF14946 ARIF1494 ARIF14946 A	
	AR080679 Sequence AR125603 Sequence AR125603 Sequence AR125603 Sequence AR125604 Sequence AR125604 Sequence AR1251285 Sequence AR2121285 Sequence AR243203 Sequence AR243203 Sequence AR243203 Sequence AR243204 Sequence AR243204 Sequence AR243204 Sequence BD074427 Polymucle BD074427 Polymucle BD074431 Polymucle BD074431 Polymucle BD074431 Polymucle BD074431 Polymucle AR1436167 Sequence BD123536 Secretory AK075400 Homo sapi AR156691 Sequence AR156692 Sequence AR156692 Sequence AR156693 Sequence AX013464 Sequence AX0134647 Homo sapi BC051321 Homo sapi BC051321 Homo sapi AR210040 Sequence AR1565134 Homo sapi AR210040 Sequence BD136761 Human pla AR210040 Sequence BD136761 Human pla AR210040 Sequence BD136761 Human pla AR2100469 Sequence AX034647 Sequence AX034649 Sequence	

JOURNAL	TITLE	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	Locus	AR080679	RESULT 1
and expression of same in transduced cells Patent: US 5968822-A 9 19-OCT-1999;	Polynucleotide encoding a polypeptide having heparanase activity	Pecker, I., Vlodavsky, I. and Feinstein, E.	1 (bases 1 to 1721)	Unclassified.	Unknown.	Unknown.	•	AR080679.1 GI:10007409	AR080679	Sequence 9 from patent US 5968822.	AR080679 1721 bp DNA linear PAT 31-AUG-2000		
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                                                               CGCTGGGTCCCCTCTCCCCTGGCGCCCTGCCCCGACCTGCGCAAGCACAGGACGTCGTGG
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AAATGCCAAAGTTG 1680	GTTCACTGGGCTTGCCCAGCTTTCTCATATAGTTTTTTTGTGATAAGAAATGCCAAAGTTG	1621	퓻
AATGCCAAAGTTG 1680	GTTCACTGGGCTTGCCAGCTTTCTCATATAGTTTTTTTTT	1621	×
CTCCGGCCAGGAA 1620	TAAAGATGGTGGATCAAACCTTGCCACCTTTAATGGAAAAAACCTC	1561	$\frac{6}{5}$
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TGAAAACTTCGATC 1260		1201	b
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1 (bases 1 to 1721)
Pecker, I., Vlodavsky, I. and Feinstein, E.
Polynucleotide encoding a polypeptide having
and expression of same in transduced cells
Patent: US 5968822-A 11 19-OCT-1999;
                                         Location/Qualifiers
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TGAATGGACGGACTGCTACCAGGGAAGATTTTCTAAACCCTGATGTATTGGACATTTTTA
                            GGGAACTAGGCAATGAACCTAACAGTTTCCTTAAGAAGGCTGATATTTTCATCAATGGGT
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Pecker,I., Vlodavsky,I., Friedman,Y.
Heparanase specific molecular probes
medical applications
Patent: US 6177545-A 1 23-JAN-2001;
Location/Qualifiers
1. 1721
                                                                                               Unclassified.
                                                                                                                                                                                     CTGCTTGCATCTGAAAATAAAATATACTAGTCCTGACACTG
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CTGCTTGCATCTGAAAATAAAATATACTAGTCCTGACACTG
                   CTGCTTGCATCTGAAAATAAAATATACTAGTCCTGACACTG 1721
                                                              GTTCACTGGGCTTGCCAGCTTTCTCATATAGTTTTTTTGTGATAAGAAATGCCAAAGTTG
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1 (bases 1 to 1721)
Pecker,I., Vlodavsky,I., Friedman,Y. ar
Heparanase specific molecular probes ar
medical applications
patent: US 6177545-A 3 23-JAN-2001;
Location/Qualifiers
Location/Qualifiers
1 .1721 AR125604 Sequence 3 : AR125604 AR125604.1 Unknown Unknown Unclassified. 451 100.0%; ilarity 100.0%; Conservative (മ /organism="unknown"
413 c 410 g from GI:14111666 1721 bp patent US 6177545 Score 1721; Pred. No. 0; 0; Mismatches 447 rt DNA ВВ and and 6 Perets,T. their use Length linear ij PAT research 16-MAY-2001 and

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Ayal-Hershkovitz,M., Moskowitz,H., Miron,D., Gilboa,A., Mimon,W.
Ben-Artzi,H., Yacoby-Zeevi,O., Pecker,I., Peleg,Y. and Schlomi,Genetically modified cells and methods for expressing recombinate and methods of purifying same patent: US 6348344-A 1 19-FEB-2002;
Patent: US 6348344-A 1 19-FEB-2002;
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Ayal-Hershkovitz,M., Moskowitz,H., Miron,D., Gilboa,A., Mimon,M., Ayal-Hershkovitz,M., Pecker,I., Peleg,Y. and Schlomi,Y. Ben-Artzi,H., Yacoby-Zeevi,O., Pecker,I., Peleg,Y. and Schlomi,Y. Genetically modified cells and methods for expressing recombinant heparanase and methods of purifying same heparanase and methods of purifying same Location/Qualifiers

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Ayal-Hershkovitz.M., Pecker,I. and Yacoby-Zeevi, Genetically modified cells and methods for expreheparanase and methods of purifying same Patent: US 6426209-A 1 30-JUL-2002; Location/Qualifiers

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Ben-Artzi,H., Yacoby-Zeevi,O., Pecker,I., Peleg,Y. and Shlomi,Y.
Genetically modified cells and methods for expressing recombinant
heparanase and methods of purifying same
patent: US 6475763-A 1 05-NOV-2002;
Location/Qualifiers
1. 1721 /organism="unknown"
413 c 410 g 1721 n patent US 647' .721 bp : 6475763. 447 DNA linear PAT 20-DEC-2002

Score 1721; Pred. No. 0; 0; Mismatches

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301 TTCGTACCTTGGCCAGAGGCTTGTCTCCTGCGTACCTGAGGTTTGGTGGCACAGACAG	241 CCATTGACGCCAACCTGGCCACGGACCCGCGGTTCCTCATCCTCCTGGGTTCTCCAAAGC 300	181 ACCTGGACTTCTTCACCCAGGAGCCGCTGCACCTGGTGAGCCCCTCGTTCCTGTCCGTCA 240	1 CGCTGGGTCCCCTCTCCCCTGGCGCCCTGCCCCGAC	61 AGATGCTGCTGCGCTCGAAGCCTGCGCTGCCGCCGCTGATGCTGCTGCTGCTGCGGGC 120	1 CTAGAGCTTTCGACTCTCCGCTGCGCGGCAGCTGGCGGGGGAGCAGCCAGGTGAGCCCA 60	itch 100.0%; Score 1721; DB 6; Length 1721; al Similarity 100.0%; Pred. No. 0; 1721; Conservative 0; Mismatches 0; Indels 0;	Unknown. M Unknown. Unclassified. Unclassified. (AR243204 1721 bp DNA linear PAT 20-DEC-2002 N Sequence 3 from patent US 6475763. AR243204 AR243204.1 GI:27290319	1681 CTGCTTGCATCTGAAAATAAAATATACTAGTCCTGACACTG 1721	1621 GTTCACTGGGCTTTGCCAGCTTTCTCATATAGTTTTTTTGTGATAAGAAATGCCAAAGTTG 1680	1561 TAAAGATGGTGGATGATCAAACCTTGCCACCTTTAATGGAAAAACCTCTCCGGCCAGGAA 1620 	1501 TAAGACCTTTGGGACCTCATGGATTACTTTCCAAATCTGTCCAACTCAATGGTCTAACTC 1560	1441 TCACCAAGTACTTGCGGTTACCCTATCCTTTTTCTAACAAGCAAG	1381 CTGACAATCCAAGGTATAAAGAAGGAGATTTAACTCTGTATGCCATAAACCTCCATAACG 1440

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RESULT 11 AR287435 LOCUES LOCUES DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL FEATURES GOUTO BASE COUNT ORIGIN Query Ma Best Loc Matches Qy Db Db Db Qy Db Db Qy Db Db Oy Oy Db Db Oy Oy Db Db Db Oy Oy Db Db Db	B & B & B & B & B & A
RESULT 1 RESILTON REQUENCE 1 from patent US 6531129. REFERENCE 1 REPERENCE 1 from patent US 6531129. REPERENCE 1 form	1441 TCACCAAGTACTTGCGGTTACCCTATCCTTTTCTAACAAGCAAG

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421 CTCAAGTCAACCAGGATATTTGCAAATATGGATCCCTCCTGATGTGGAGGAGAAGT 480	361 ACTTCCTAATTTTCGATCCCAAGAAGGAATCAACCTTTGAAGAGAGAG	361 ACTTCCTAATTTTCGATCCCAAGAAGGAATCAACCTTTGAAGAGAGAG	301 TTCGTACCTTGGCCAGAGGCTTGTCTCCTGCGTACCTGAGGTTTTGGTGGCACCAAGACAG 360	241 CCATTGACGCCAACCTGGCCACGGACCCGCGGTTCCTCATCCTCCTGGGTTCTCCAAAGC 300	181 ACCTGGACTTCTTCACCCAGGAGCCGCTGCACCTGGTGAGCCCCTCGTTCCTGTCCGTCA 240	121 CGCTGGGTCCCCTCTCCCCTGGCGCCCTGCCCCGACCTGCGCAAGCACAGGACGTCGTGG 180	61 AGATGCTGCTGCGCTCGAAGCCTGCGCTGCCGCCGCCGCTGATGCTGCTGCTGCTCCTGGGGC 120	1 CTAGAGCTTTCGACTCTCCGCTGCGCGGCAGCTGGCGGGGGAGCAGCCAGGTGAGCCCA 60	atch 100.0%; Score 1721; DB 6; Length 1721; DB Similarity 100.0%; Pred. No. 0; 1721; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	AR287436.1 GI:2 Unknown. Unknown. Unclassified. 1 (bases 1 to 1 pecker, I., Vlods Heparanase specimedical applicate patent: US 65311 Locatic 1, 172 /organi	1681 CTGCTTGCATCTGAAAATAAAATATACTAGTCCTGACACTG 1721	1621 GTTCACTGGGCTTGCCAGCTTTCTCATATAGTTTTTTTTGTGATAAGAAATGCCAAAGTTG 1680 	1561 TAAAGATGGTGGATGATCAAACCTTGCCACCTTTAATGGAAAAACCTCTCCGGCCAGGAA 1620 	1501 TAAGACCTTTGGGACCTCATGGATTACTTTCCAAATCTGTCCAACTCAATGGTCTAACTC 1560

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TITLE
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Best Local Similarity
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OS Nucleic acid
PN UP 2001514855-A/8
PN 1P 2001514855-A/8
PN 1P 200151485-A/8
PD 18-SEP-2001
PF 31-AUG-1998 JP 2000508806
PR 02-SEP-1997 US 08/922170,02-JUL-1998 US 09/109386 PI
IRIS PECKER, ISRAEL VLODAVSKY, FEINSTEIN ELENA
PC C12N15/09, A61K38/00, A61P9/10, A61P17/00, A61P29/00, A61P35/00, PC
A61P37/00,
PC A61P43/00,C12N5/10,C12N9/24,C12Q1/68,G01N33/15,G01N33/50// PC
A61K39/395,C12N15/00,A61K37/02,C12N5/00
PC A61K39/395,C12N15/00,A61K37/02,C12N5/00
CC Polymucleotide encoding polypeptide having
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expression of the polypeptide in induced cell FH Key
CC expression of the polypeptide in induced cell FH Key
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Pecker,I., Vlodavsky,I. and Elena,F.
Pecker,I., Vlodavsky,I. and Elena,F.
Polymucleotide encoding polypeptide having heparanase
expression of the polypeptide in induced cell
Patent: JP 2001514855-A 8 18-SEP-2001;
INSIGHT STRATEGY & MARKETING LTD, HADASIT MEDICAL RESE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BD074427 1721 bp DNA linear PAT 27-AUG-2002 Polynucleotide encoding polypeptide having heparanase activity and expression of the polypeptide in induced cell.
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JP 2001514855-A/8.
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•	301	TTCGTACCTTGGCCAGAGGCTTGTCTCCTGCGTACCTGAGGTTTGGTGGCACCAAGACAG 360	
	361 361	ACTTCCTAATTTTCGATCCCAAGAAGGAATCAACCTTTGAAGAGAGAG	
	421 421	CTCAAGTCAACCAGGATATTTGCAAATATGGATCCATCCCTCCTGATGTGGAGGAGAAGT 480	
	481	TACGGTTGGAATGGCCCTACCAGGAGCAATTGCTACTCCGAGAACACTACCAGAAAAAGT 540	
	541 541	TCAAGAACAGCACCTACTCAAGAAGCTCTGTAGATGTGCTATACACTTTTGCAAACTGCT 600	
	601	CAGGACTGGACTTGATCTTTGGCCTAAATGCGTTATTAAGAACAGCAGATTTGCAGTGGA 660	
	661 661	ACAGTTCTAATGCTCAGTTGCTCCTGGACTACTGCTCCTTCCAAGGGGTATAACATTTCTT 720	
	721 721	GGGAACTAGGCAATGAACCTAACAGTTTCCTTAAGAAGGCTGATATTTTCATCAATGGGT 780	
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	901	AGAGCTTCCTGAAGGCTGGTGGAGAAGTGATTGATTCAGTTACATGGCATCACTACTATT 960	
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	1081	GGTTAGGAGAAACAAGCTCTGCATATGGAGGCGGAGCGCCCTTGCTATCCGACACCTTTG 1140	
		CAGCTGGCTTTATGTGGCTGGATAAATTGGGCCTGTCAGCCCGAATGGGAATAGAAGTGG 1200	
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PN JP 2001514855-A/9

PD 16-SEP-2001

PF 31-AUG-1998 JP 2000508806

PF 02-SEP-1997 US 08/922170,02-JUL-1998 US 09/109386 PI

IRIS PECKER, ISRAEL VLODAVSKY, FEINSTEIN ELENA

PC C12N15/09,A61K38/00,A61P9/10,A61P17/00,A61P29/00,A61P35/00, PC

A61P37/00,
PC A61P37/00,C12N5/10,C12N9/24,C12Q1/68,G01N33/15,G01N33/50// PC

A61K39/395,C12N15/00,A61K37/02,C12N5/00

PC A61K39/395,C12N15/00,A61K37/02,C12N5/00

CC POlynucleotide encoding polypeptide having

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Pecker,I., Vlodavsky,I. and Elena,F.
Pecker,I., Vlodavsky,I. and Elena,F.
Polynucleotide encoding polypeptide having heparanase
expression of the polypeptide in induced cell
Patent: JP 2001514855-A 9 18-SEP-2001;
PRATEGY & MARKETING LTD, HADASIT MEDICAL RESE
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/organism="unidentified"
/mol_type="genomic DNA"
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TGAATGGACGGACTGCTACCAGGGAAGATTTTCTAAACCCTGATGTATTGGACATTTTTA
                                            AGAGCTTCCTGAAGGCTGGTGGAGAAGTGATTGATTCAGTTACATGGCATCACTACTATT
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S Pecker; I., Vlodavsky, I. and Elena, F.

S Pecker; I., Vlodavsky, I. and Elena, F.

Polynucleotide encoding polypeptide having heparanase act expression of the polypeptide in induced cell

Patent: JP 2001514855-A 11 18-SEP-2001;

LINSIGHT STRATEGY & MARKETING LTD, HADASIT MEDICAL RESEARC & DEVELOPMENT LTD

OS Nucleic acid

PN JP 2001514855-A/11

PD 18-SEP-2001

PF 31-AUG-1998 JP 2000508806
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BD074430.1 GI:22620033
JP 2001514855-A/11.
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Best Local Similarity 99.9%;
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PC C12N15/09,A61K38/00,A61P9/10,A61P17/00,A61P29/00,A61P35/00, PC
A61P37/00,
PC A61P43/00,C12N5/10,C12N9/24,C12Q1/68,G01N33/15,G01N33/50// PC
A61K39/395,C12N15/00,A61K37/02,C12N5/00
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PC POlynucleotide encoding polypeptide having heparanase activity
CC Polynucleotide encoding polypeptide having heparanase activity
CC expression of the polypeptide in induced cell FH Key
Location/Qualifiers
FT source /organism='Nucleic acid'.
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